New Orleans Medical
and
Surgical Journal

$4.00 Per Annum, 35c Per Copy
Vol. 104, No. 14

AUGUST, 1952

Published Monthly
1430 Tulane Avenue, New Orleans 12, La.

MEDIASTINAL TUMORS*

JAMES D. RIVES, M. D.†
NEW ORLEANS

Present day usage has changed the meaning of the term mediastinum to some extent and has altered its subdivisions even more. Since the diagnosis of mediastinal tumors depends to a very large extent on the location of the mass, it is necessary that the terms used be clearly understood.

First, it is well to know that the limits of the mediastinum have been extended to include the paravertebral gutter, in which the sympathetic chain lies. Second, the term superior mediastinum is seldom used. Current practice simply divides the mediastinum into two rough divisions, designated as anterior and posterior. Most writers include in the anterior mediastinum the trachea and the hilum of the lung. So when reference is made to the anterior mediastinum in this communication that term will include everything in the mediastinum anterior to a frontal plane lying between the trachea and esophagus. In addition to these two general terms, we shall designate the space immediately behind the sternum as the retrosternal space because certain tumors are peculiar to this location, notably tumors of the thymus.

PATHOLOGY

From a clinical standpoint one cannot hope to make use of the detailed classifications that pathologists use for mediastinal tumors except in retrospect, so we shall reduce the classification to a few groups that one may hope to recognize before or during exploration.

INFLAMMATORY MASSES

Inflammatory masses are not usually demonstrable without exploration but are very common. Acute lymphadenopathies occur in bronchitis and in pneumonitis of any variety with great regularity but are seldom recognized clinically. Suppuration is rare. Tuberculous adenitis is regularly present in pulmonary tuberculosis but does not usually have clinical significance. However, occasionally large tuberculomas develop and may cause tracheal compression, thus assuming an individual clinical significance.

ANEURYSMS

Although large thoracic aneurysms are said to be rare in some parts of the United States, at this time they are still among the most common mediastinal masses seen in New Orleans, and are often hard to differentiate from neoplasms.

METASTATIC NEOPLASMS

Metastatic tumors are undoubtedly the most common neoplasms found in the mediastinum. They are not so reported in hospital records for such records are filed under the primary diagnosis.

Carcinoma of the lungs, the breasts, and the thyroids are the most frequent primary lesions, but many other sources add their quota, including, of course, the esophagus and stomach. It is often difficult, or even impossible to distinguish such metastatic tumors from primary lesions.

---

*Presented at the Seventy-second Annual Meeting of the Louisiana State Medical Society, Shreveport, April 29, 1952.

†Professor and Head of the Department of Surgery, Louisiana State University, School of Medicine, New Orleans, La.

SUBSTERNAL GOITRE

Substernal goitres are among the most common mediastinal masses in endemic goitre areas. Since they are almost invariably associated with enlargement of the cervical portion of the thyroid gland they are not often difficult to recognize.

ABERRANT THYROID MASSES

Aberrant thyroid masses almost if not always associated with cervical goitre are rare, but may be found anywhere within the mediastinal area.

PRIMARY MEDIASTINAL TUMORS

Primary mediastinal tumors are quite uncommon but they run almost the entire gamut of neoplasia.

The following simplified classification is an attempt to reduce the complexity of the problem to practical clinical proportions:

A. Cysts and cystic tumors
   1. Teratoid tumors and cysts
   2. Bronchogenic cysts
   3. Esophago-gastro-enteric cysts
   4. Lymphatic cysts
   5. Pericardio-celomic and pleural cysts (mesothelial)

B. Neurogenic tumors
   1. Paravertebral neurogenic tumors (usually originating in the sympathetic chain)
   2. "Dumb-bell" tumors (originating in the spinal nerves)
   3. Miscellaneous neurogenic tumors originating in the vagus or other mediastinal nerves (rare)

C. Thymic tumors

D. Lymphomas

E. Connective tissue tumors
   1. Chondromas (sternum, costal cartilages, vertebrae)
   2. Sarcomas—including osteogenic sarcomas
   3. Giant cell tumors (Epulis type) of ribs or other bones of thoracic cage
   4. Lipomas
   5. Fibromas, etc

F. Aberrant thyroid masses

G. Unidentifiable malignant neoplasms, carcinoma and sarcoma[1]

DIAGNOSIS (GENERAL)

It should be borne in mind that most mediastinal tumors are found accidentally in the course of examinations conducted for other purposes and that examinations for induction into, or separation from, the armed forces have played a very large part in recent years, as have also large scale x-rays surveys, intended primarily for the discovery of tuberculosis. Our concept of the frequency of occurrence of the various types of tumors has been radically changed by the recognition and removal of these symptomless mediastinal masses.

A. *Symptoms and signs* are usually entirely lacking; when present, the most common are:
   1. Substernal discomfort
      a. Tightness or pressure
      b. A lump
      c. Pain
   2. Cough
   3. Vascular murmurs, caused by aneurysms or compression of of the great vessels by neoplasms
   4. Dyspnea
   5. Dysphagia
   6. Distended neck veins
   7. Collateral circulation development on chest wall and neck.
   8. Consolidation in lung fields

B. X-ray

We must accept the fact that not only are most mediastinal tumors discovered by x-ray, but that x-ray examination is worth more in identifying the type of tumor before operation than are all other methods combined. In order to get full value from this facility, a wide variety of methods must be used:
   1. A-P., lateral, and oblique views
   2. Planograms—laminograms
   3. Esophagrams
   4. Angiocardiograms

[1]These probably originate from the thymus, from teratoid tumors, or perhaps other lesions above, such as bronchogenic cysts.

5. Fluoroscopy
   a. Pulsation
   b. Esophagus—barium swallow
   c. Movement of tumor with swallowing (goitre and bronchogenic cysts).
6. Bronchograms
7. Artificial pneumothorax
8. Spine, ribs and sternum
   a. Erosion by aneurysms
   b. Neurogenic tumors (erosion of ribs and/or enlargement of foramina)
   c. Tumors primary in spine, ribs or sternum
9. Therapeutic test by deep x-ray therapy

GENERALIZATIONS ON DIAGNOSIS

1. Tumors that cause severe symptoms are almost certainly either malignant or infected. This is especially true of severe pain, cough, fever, dyspnea, dysphagia, and venous congestion.

2. With the exception of thymic tumors and substernal thyroid masses, benign tumors tend to originate on one side or the other of the mediastinum and, as they grow, seem to be extruded into one or the other lung fields without embarrassment to vital structures. The esophagus and trachea are often displaced, but this takes place slowly, and causes little or no embarrassment to function.

3. In general, benign tumors tend to be sharply defined, smoothly outlined, and either roughly spherical or lobulated.

4. A very large proportion of all mediastinal tumors is made up of a small number of types, most of which are characteristic in location. The remainder is made up of so many varieties, all of which are uncommon or rare, that preoperative diagnosis is virtually impossible.

The following table indicates the types of tumors most commonly found in the various parts of the mediastinal space:

A. The retrosternal position[2]
   1. *Thymic tumors*
   2. *Substernal thyroids*
   3. Tumors of the sternum, and costal cartilages
   4. Lymphomas
B. "Anterior mediastinum"
   1. *Teratoid tumors and cysts*
   2. *Bronchial cysts*
   3. Esophago-gastro-enteric cysts
   4. Lymphomas
   5. Pericardio-celomic cysts
C. "Posterior mediastinum"
   1. *Neurogenic tumors*
   2. Chondromas — usually of the spine
   3. *Esophago-gastric-enteric cysts*
   4. Tumors of ribs—giant cell tumors, osteogenic sarcomas, etc.

TREATMENT

Since most mediastinal tumors are symptomless when first discovered, one may be tempted to say that they require no treatment. This conclusion is unsound for several reasons.

1. Many such tumors are malignant when discovered, and there are no reliable criteria by which this fact can be determined before widespread infiltration has occurred. If any malignant tumors are to be cured, it must be before this has taken place.

2. Several of the most common "benign" tumors are notoriously prone to malignant change. Among these are the neurofibromas, teratoid cysts and tumors, and thymic tumors. Some students of pathology object to the statement that malignant tumors in these groups originate from benign lesions, insisting that they were probably malignant from the beginning. Admitting that this may be true, it is still a fact that

[2]The tumors formerly reported as papillary carcinoma of aberrant thyroid tissue in the mediastinum have now been proven to be actually metastatic carcinoma from the thyroid into mediastinal lymph nodes. Their importance in surgery of the mediastinum lies in the fact that they are of low-grade malignancy and it is, therefore, worthwhile to remove them, which is not true of most other metastatic lesions.

from the clinical standpoint it is often impossible to tell whether a given tumor is malignant or not and we must, therefore, act on the assumption that they are.

It seems probable that some of the anaplastic malignant lesions of the mediastinum, the origin of which cannot be determined, may have originated in symptomless bronchogenic or esophago-gastrointestinal cysts.

3. Benign cysts and mesodermal tumors such as lipomas and fibromas may grow to such great size that they produce pressure symptoms; and when they reach such prodigious proportions removal may be very difficult and dangerous.

4. Neurofibromas originating from the spinal nerves frequently grow into the spinal foramina, producing pressure on the spinal cord.

5. Dermoid cysts, in particular, and less frequently bronchogenic and esophageal or gastrointestinal cysts, become infected and rupture into the bronchi, the lungs, the pleural cavity or the mediastinal space.

It may be stated categorically that no mediastinal tumor can be called harmless with any real confidence. When one adds the fact that practically all noninfiltrating tumors can be removed with a very small operative risk, it becomes apparent that all circumscribed tumors should be removed.

It is also true that a few tumors that appear to be diffuse can also be successfully removed, and since there is no prospect of cure by any other method, one is tempted to agree with Osler Abbott that all mediastinal tumors should be explored. However, the prospects of removal in such cases are small, and since many of them are lymphomas that respond readily, though temporarily, to irradiation, a good many authorities feel that a therapeutic dose of x-ray should be tried as a therapeutic test, especially when the mass is in the anterior mediastinum. It should be remembered, however, that some malignant thymomas that are still intrinsic may be cured by removal and that temporary response to x-ray therapy may delay the attempt with disastrous results.

SURGICAL TREATMENT

Anesthesia.—I am convinced that all mediastinal operations should be conducted under general inhalation anesthesia, administered through an intratracheal tube, since—

1. One or both pleural cavities are usually opened and a certain method of maintaining positive intrapulmonary pressure is essential.

2. Manipulation and compression of the trachea is often necessary in freeing the tumor, especially when it lies in the anterior mediastinum.

Approach.—A few years ago, surgeons were at great pains to approach mediastinal masses extrapleurally, but it has become evident that this is usually unnecessarily difficult and serves no useful purpose except perhaps in centrally placed retrosternal tumors such as thymomas.

A transpleural approach has many advantages:

1. Most of these tumors present on one or the other side of the mediastinum. A transpleural incision exposes one side of the tumor at once and usually makes it possible to determine its relation to the great vessels, the trachea, and adjacent structures, before the dissection is begun.

2. The incision can be made large enough to permit complete visualization as well as bimanual dissection and manipulation.

3. The pleura is usually opened during the course of the "extrapleural" operations anyway, and a small pleural rent often results in tension pneumothorax which may be deadly, even with positive pressure anesthesia. Needless to say, this cannot occur with a wide-open pleural cavity.

When one elects to use a transpleural approach, one has a choice of an anterior or a posterolateral incision. Here we meet a wide divergence of opinion. The following are some of the considerations which may dictate the type of incision best suited to an individual case:

1. The incision should be so placed that it will permit easy visualization of the operative field and large enough to permit adequate exposure for safe and satisfactory dissection.

2. Anteriorly placed tumors above the hilum of the lung are readily approached by an anterior incision, provided they are not of such great size that they block the available opening. Anterior incisions are quite limited in size unless one or more ribs are sacrificed, and the removal of the anterior portion of the ribs produces an unsightly deformity. The area posterior and inferior to the hilum of the lung cannot be satisfactorily exposed from the front until the lung has been removed.

3. In all other cases, and in all cases where there is doubt as to the best approach, the posterolateral incision should be selected. It is not limited as to size and its obliquity makes it possible to expose the mediastinal surface from top to bottom.

4. In case of need, one may resect one or more ribs, since removal of the posterior portions of the ribs produces very little deformity. A posterolateral incision, if extended from the tips of the transverse processes to the sternum provides a very large opening. One or more ribs may be divided anteriorly, posteriorly, or both; this maneuver will provide an opening large enough to remove any tumor that the chest cavity can accommodate.

The Retrosternal Space.—Tumors that are centrally placed immediately behind the sternum constitute a special problem. They are usually of thyroid or thymic origin. The authors have had no experience with the removal of thymomas since every one encountered has been an infiltrating malignant lesion. This is rather remarkable in view of the large number of thymic tumors reported and the fact that our experience includes a wide variety of mediastinal lesions.

It is evident from the literature that, in highly skilled hands, the removal of the thymus, when normal in size or only moderately enlarged, is readily and safely accomplished by a sternum-splitting incision. Three things should be borne in mind, however. (1) This incision is relatively small and has rigid bony margins that cannot be widely retracted. (2) The space is very vascular, and the innominate veins lie behind the tumor and cannot be visualized until the mass has been displaced from its bed, which may be too late. (3) The pleural spaces usually meet, and frequently overlap in front, so both pleural cavities may be entered at the same time. This is not an insuperable problem, but it is not a simple one.

Substernal thyroid masses are usually connected to a cervical goitre and when they are not so connected usually derive their circulation from the inferior thyroid vessels. They can almost always be reached and removed from above. We have had one such tumor that was not connected with the thyroid gland in the neck and which received its blood supply from the aorta. It was calcified and weighed 540 grams after removal. It could not be delivered from above but an anterior transpleural incision in the third interspace with transverse division of the sternum made its removal only moderately difficult.

The literature abounds in reports of fatal results from trans-sternal approaches to such thyroid masses. It is true that most of them have been by surgeons with limited experience in thoracic surgery, but we cling to the belief that large retrosternal masses are more safely approached by the transpleural route. The trans-sternal incision is too blind for our taste.

PROGNOSIS

Malignant mediastinal lesions that have spread beyond the limits of the organ or the benign cyst or tumor in which they originated are rarely if ever cured by any means. Some of them, notably the lymphomas, may be controlled for a few months or years by irradiation or by the nitrogen mustards.

Benign tumors and intrinsic malignant tumors are practically always readily removed and the operative risk is very small. The number of cases reported in recent years is not great enough to permit the reduction of the operative risk to significant percentages, but it may be stated confidently that the operative mortality and morbidity is that of a wide-open thoracotomy rather than that of the removal of the tumor per se. The mortality should not ex-

ceed 2 to 5 per cent, and this figure includes an occasional empyema (usually due to infected cysts).

SUMMARY

1. Mediastinal tumors are uncommon, but include a wide variety of lesions.

2. Most mediastinal lesions are either inflammatory or metastatic.

3. Most curable mediastinal lesions are either asymptomatic or produce very minor symptoms. When severe symptoms occur malignant lesions must be suspected.

4. Accurate diagnosis depends almost entirely upon highly skilled x-ray examinations.

5. All apparently benign mediastinal tumors should be removed, since they may be or may become malignant and because many of the benign lesions tend to become infected or to grow to such large size that they produce serious disability by their presence alone.

6. Most thoracic surgeons now believe that all mediastinal tumors that are not obviously hopeless should be explored because the selection of the methods of treatment depends upon the type of lesion. The therapeutic test of irradiation may lead to disastrous delay in tumors that might be successfully removed.

7. The surgical approach to mediastinal tumors is discussed. A strong preference for wide transpleural incisions is expressed.

———o———

SURGICAL REPAIR OF HERNIA IN CHILDREN*

JOHN A. HENDRICK, M. D.†
SHREVEPORT

There is comparatively little in the literature regarding the surgical treatment of indirect inguinal hernia in infants and children when one considers the large number of articles on inguinal hernia as a whole. There has been some difference of opinion in the past as to the best age for surgical repair, and a tendency to wait until "the child is old enough for surgery," or to see if the hernia will cure itself. Most articles have dealt with high ligation of the sac and some form of reparative procedure in order to strengthen the abdominal wall in this region. Many have advocated the same, or almost the same type of surgical repair as one uses in adults. Since the latter part of 1949, simple high ligation of the sac without any additional reparative precedure has been performed in 51 personal cases. This is admittedly a small series. However, the with which it is performed, the smooth postoperative course, the lack of complications, and the excellent results obtained have been most gratifying.

INDICATIONS FOR SURGERY

The cause of indirect inguinal hernia in infants and children is lack of obliteration of the processus vaginalis which should have been completed during fetal life. The indirect inguinal hernia is not the result of muscular weakness or a defect in the transversalis fascia. Bearing this fact in mind, it seems logical that simple removal of the offending sac is all that is necessary. If this is done without elevating the cord from its bed, there is little likelihood of injuring the delicate spermatic vessels. The muscular development of the inguinal region will also have the opportunity of continuing in a perfectly normal manner. This is probably not the case when additional reparative surgery is done along with high ligation of the sac.

It is the opinion of almost everyone today who deals with inguinal hernias in infants and children that, if a definite diagnosis can be made, surgery is indicated—regardless of the age, and provided the child is otherwise healthy, developing normally, and gaining weight. Removal of the sac can readily be accomplished in the newborn. The parents will often inquire about the possibility of a spontaneous cure. There is no doubt that during the first four months of life, the processus vaginalis may occasionally continue to obliterate itself; the incidence of indirect inguinal hernia later in life in this group of cases is probably quite

*Presented at the Seventy-second Annual Meeting of the Louisiana State Medical Society, Shreveport, April 29, 1952.

†From the Surgical Section, Highland Clinic.

high. One can safely predict that, if the hernia is found after six months of age, there is almost no hope of spontaneous cure either with or without a truss. The use of trusses is mentioned only to be condemned except in cases where surgery is contraindicated from some other cause. There is no reason to subject an otherwise healthy child to the danger of strangulation or incarceration when surgery offers such excellent results.

Incarceration is a real danger; this occurred in 8 cases in this series and in 19 per cent of the infants reported by Potts.[1] Incarceration is much more frequent during the first year of life. Figure 1, shows the age

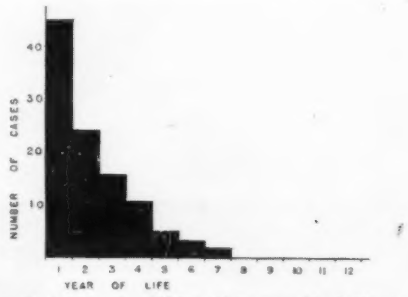

Fig. 212.—Age incidence of 106 children with incarcerated inguinal hernia.

Fig. 1. Age incidence of 106 children with incarcerated inguinal hernia. Ladd & Gross: Abdomdominal Surgery of Infancy and Childhood.—Courtesy W. B. Saunders Co.

incidence of 106 children with incarcerated inguinal hernia. Most incarcerated hernias in infants can be reduced. Our procedure has been to give the baby a pacifier and use gentle pressure over the inguinal region. In cases in which this is not adequate, the child is sedated and the legs are suspended so that only the head and shoulders touch the mattress. Often the relaxation which occurs and the effect of gravity will enable one to obtain reduction of the hernia. Elective surgery is then performed several days later after the edema around the thin sac has disappeared.

TYPES OF SURGERY USED

Simple high ligation with removal of the hernia sac is not new. Ferguson, in 1899, was the first to advise against lifting the cord structures from their normal position, but he did advise a plastic repair of the structures in the inguinal region. Turnner, in 1912, and McLennon, in 1914,[2] advised merely removal of the sac through a small incision over the internal ring. The same point was stressed by Russel,[3] in 1925, Herzfeld,[4] in 1938, Coles,[5] in 1945, and Potts, in 1950, who reviewed 600 cases. Graham has stated that he saw this procedure used over thirty years ago in the outpatient department at the University of Glasgow. Ladd and Gross[6] reported a large series of cases in which a modified Ferguson operation was performed. They stated that transposition of the cord is not to be recommended because of the danger of compression of the delicate spermatic vessels which might bring about atrophy of the testicle. The procedure advocated by them (Fig. 2 and 3) consisted of freeing the sac,

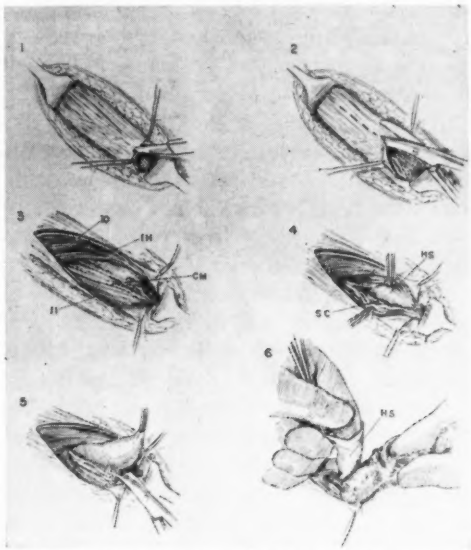

Fig. 2. Steps for inguinal herniorrhopy: modified Ferguson repair. Ladd & Gross: Abdominal Surgery of Infancy and Childhood.—Courtesy of W. B. Saunders Co.

transfixing the neck with a silk suture, and imbricating this beneath the internal oblique muscle. The spermatic cord was allowed to remain in its normal bed; silk sutures were placed through the medial edge of the fascia of the external oblique, the internal oblique muscle, and finally through the shelving edge of the inguinal ligament anterior to the cord. The lower flap of the

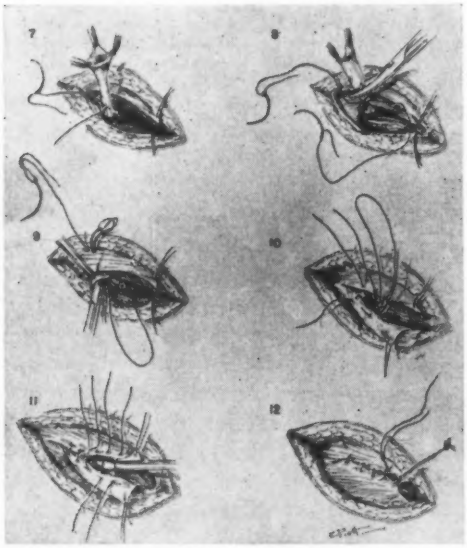

Fig. 3. Continued from Fig. 2.

external oblique was then imbricated upward with interrupted sutures of black silk reconstructing the external inguinal ring. Ladd and Gross state that there was slightly greater incidence of postoperative atrophy of the testicle than of recurring hernia in their series. They stress the importance of carefully preserving the testicular blood supply and also reconstructing an inguinal canal so that it is large enough to accommodate the spermatic cord without undue constriction. Gross[7] has recently reviewed over 8,000 cases in which the modified Ferguson procedure was used. This type of operation was performed until 1949 with very satisfactory results. However, since that time we have followed the procedure as will be described, which in our experience has given excellent results, is much simpler to perform, appears to be more physiological, and we believe decreases the danger of postoperative testicular atrophy.

PROCEDURE USED AT PRESENT

The procedure (Fig. 4), as used at present, consists of an almost transverse incision in the crease of the suprapubic region in infants, and a transverse incision in older children over the level of the internal ring. We feel that an incision of this type is easier to close and heals more rapidly than

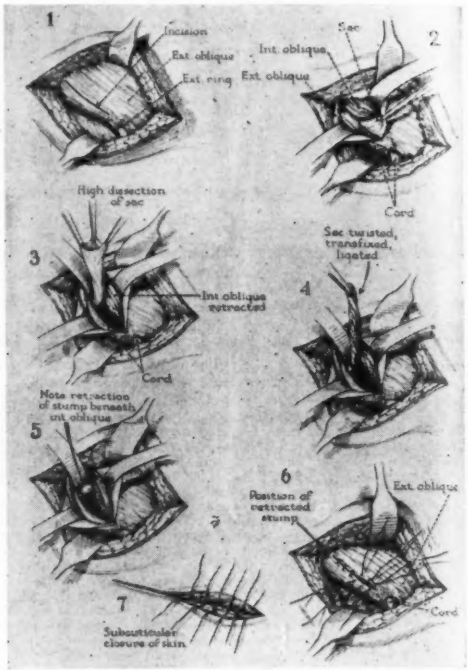

Fig. 4. Technique of repair of hernia.—Courtesy of Potts, Ricker, and Lewis. The Treatment of Inguinal Hernia in Infants and Children. Ann. Surg., 132:566, 1950.

one parallel with the inguinal ligament; that there is less likelihood of infection; and that it leaves an almost invisible scar. The incision is carried down to the external oblique fascia which is opened in line with its fibers to the external ring. In infants it is rarely necessary to carry the incision across the external ring. Usually the sac is easily identified on the anterior and medial aspect of the cord. After separating the fibers of the cremaster muscle, the sac is gently lifted up and the vessels and vas dissected away from it with care. Gentleness is required in dealing with this very thin structure because of the ease with which it is torn. Should tearing occur it may interfere with adequate high dissection and ligation. After it is separated from the structures of the cord to the level of the internal ring, it is opened and inspected for the presence of omentum or intestines. In the female one should look carefully for the presence of the ovary and tube. The sac is then twisted until the properitoneal fat appears or until

the neck has been completely obliterated. It is transfixed high with a silk suture and tied. The excess is cut away and the neck allowed to retract beneath the internal oblique. Twisting before transfixion serves two purposes: it precludes the possibility of incorporating any of the abdominal contents in the transfixion suture and also makes ligation of the very thin sac easy. Suturing the sac without twisting it is quite often difficult because of its fragility. No other reparative surgery is done; the external oblique is closed with several interrupted sutures of number three or four 0 black silk; the subcutaneous tissue is closed with six 0 black silk; and the skin is closed with either a subcuticular six 0 black silk or interrupted end-on mattress sutures. A small piece of elastoplast is placed over the dressing and the patient returned to his room. There are no restrictions placed on the child postoperatively, and he is dismissed the following day, to return to the office in one week for removal of sutures or dressing of the wound. After the child is six years of age, the parents are instructed to restrict activities for approximately three weeks. As a rule these children are admitted the morning of surgery and dismissed the following day.

ANALYSIS OF CASES

Forty-six of the 51 cases reviewed in this series were males and 5 were females. An indirect inguinal hernia occurred in 36 cases on the right side, 13 on the left, and in 1 case was bilateral. A hydrocele was present in 8 of the 51 cases; the tube and ovary were present in the sac in 1 female, age four months. In 8 cases incarceration was or had been recently present. The youngest in the series was an infant of seven weeks, the oldest a child of twelve years. Twenty cases were in children two years of age or younger. The average age for the entire group was 4.1 years. In this series all wounds healed without infection and there were no postoperative complications. In one case only it was necessary to remove a subcuticular fine black silk suture four weeks following surgery. There has been no atrophy of the testicle in any case and there has been no recurrence.

Not included in this series were 3 children in whom additional reparative procedures were used. Two cases were sliding hernias and in another infant the internal ring was so large that several sutures of fine black silk were used to strengthen this region.

CONCLUSION

Indirect inguinal hernia in infants and children should be repaired when the diagnosis is made, unless there is some contraindication to surgery. Age of the child is not a contraindication.

The value of an almost transverse skin incision; and opening the external oblique without extending the incision through the external inguinal ring is stressed.

Simple high ligation of the sac without elevating the spermatic cord from its bed, and the use of no other reparative surgery is advocated.

A brief review of 51 cases in which this procedure was used has been presented with illustrations demonstrating the procedure.

REFERENCES

1. Potts, Willis J., Riker, William L., Lewis, James E.: The treatment of inguinal hernia in infants and children, Ann. Surg., 132:566, 1950.

2. Quoted by—Potts, Willis J., Riker, William L., Lewis, James E.: The treatment of inguinal hernia in infants and children, Ann. Surg., 132:566, 1950.

3. Russell R. H.: Inguinal hernia and operative procedure, Surg., Gynec., & Obst., 41:605, 1925.

4. Herzfeld, Gertrude: Hernia in infancy, Amer. J. Surg., 39:422, 1938.

5. Coles, Jerome S.: Operative cure of inguinal hernia in infancy and childhood, Amer. J. Surg., 69:366, 1945.

6. Ladd, William E., Gross, Robert E.: Abdominal surgery of infancy and childhood, Chapter XXIX, 354, 1941, W. B. Saunders Co.

7. Gross, Robert E.: Personal Communication.

—o—

WHAT IS PSYCHOTHERAPY?*

T. L. L. SONIAT, M. D.†

NEW ORLEANS

Is psychotherapy a crystal ball, a couch, a magic wand or a genteel third degree? Obviously, it is none of these. It is a method of treatment by which one person is influenced by another in a constructive direction. It is thus a re-educational process. It is something that is worked out with,

*Presented at the Seventy-second Annual Meeting of the Louisiana State Medical Society, Shreveport, Louisiana, April 29, 1952.

†From the Department of Neurology and Psychiatry, Ochsner Clinic, New Orleans.

not administered to, the patient and its success depends on certain assets in the patient.

It might be well here to recall that a psychoneurosis is an attempt by the personality to effect an adjustment that will obviate tension and prevent the occurrence of anxiety. Psychoneuroses, then, are ways of reacting. Consequently, we are interested in the *meaning* of a neurosis rather than in its cause.

In no clinical specialty can we practice mechanistic medicine. When a patient walks into a physician's office, he requires two kinds of aid. The first is medical attention and the second is reassurance; in the ordinary consultation, the second is as important as the first.

Sensible manipulation of the environment and the routine of living, occupational therapy, and counselling are often preliminary steps in the approach to a psychotherapeutic problem. They abolish external complications. They effect "cures" when the situation rather than the individual is sick. When they work perhaps it is folly to penetrate deeper, but when they fail it is even greater folly to persist.

Psychotherapy may vary in its goal from an effort to teach patients how to live with some measure of comfort within the confines of their uncured neuroses (palliative psychotherapy) to an attempt to make the patient understand the meaning of his symptoms and the nature of his conflicts (interpretive psychotherapy). The latter is a process of re-education and when successfully accomplished leads to sufficient emotional growth to abolish the necessity for developing symptoms.

TECHNIQUES

The essential psychotherapeutic techniques include: (1) supportive treatment, (2) suggestion and persuasion, (3) ventilation and abreaction, and (4) interpretation. It is of particular importance to know not only the limits of these various forms of psychotherapy but also when to combine them and when to add other therapeutic methods, such as medicinal treatment, the various forms of shock therapy or narcosynthesis. The last method, however, is of limited value in civilian practice.

Supportive treatment: Of most importance is the physician's attitude but this method also includes more direct reassurance, encouragement and explanation. It begins with a thorough physical examination and evaluation. Then by his attitude and actions the physician must make the patient feel that he cares, is interested in and is eager to help him. The verdict of physical health will be acceptable to a patient only if he has been subjected to an examination which he considers thorough. The physician must show the patient that he is not prejudiced, dogmatic, or haughty. We must realize that the emotionally sick, like children, have an uncanny sense of the truth. This is particularly important in dealing with children, who often manifest an amazing ability to evaluate adults accurately. Therefore, true supportive therapy can never be given without the solid foundation of conviction of truth in what the therapist is saying. Also, in supportive psychotherapy, one must help the patient maintain his self-esteem.

Irrespective of whether or not a physician chooses to treat overt psychiatric disorders, there is one field in which he must employ psychotherapy, that is in chronic or incurable physical disease. Many authorities favor telling these patients the truth, but in encouraging terms, because withholding the diagnosis sometimes makes the patient fear a possibility that is even worse than the actual condition. Another important point is to maintain in the patient a feeling that he can do something for himself (a feeling of control), since abandonment to fate constitutes extreme stress which few people can tolerate.

Suggestion and persuasion are far less powerful than commonly assumed, especially in the worst neurotic illnesses; most people are no longer naive. Moreover, the results are usually only temporary. It is important that the suggestion be couched in positive rather than negative language.

Ventilation and abreaction: By this method the patient is allowed to ventilate

his emotions freely in a setting of understanding permissiveness. Once successful ventilation is in progress, the physician should interrupt as little as possible. If ventilation proceeds on a purely intellectual level without associated emotional expression, the therapeutic benefit is frequently minimal or absent. It is then that one must bring about real emotional participation, an emotional reliving of the stress situation for which the word *abreaction* has come into vogue, which literally means to "react off" or to "blow off steam."

Interpretation of the neurosis to the patient requires technical skill and is the most important of these methods. It should not be attempted until a good relationship has been established with the patient and then only if the therapist is sure of the correctness and timing of the interpretation. Results are never as dramatic as the moving pictures and radio would lead one to believe. Rather the process of understanding is slow and can be achieved only by the continued cooperative effort of the physician and the patient. This is the most difficult part of psychotherapy and requires the greatest amount of tact, timing, and skill. It is important to realize that in certain phases of interpretive (or insight) treatment, the patient is not "supported" but on the contrary is "lowered" because he is losing his last defenses against finding out facts about himself which are deeply disturbing and which previously have been unacceptable. Experience is needed in carrying through these phases of treatment, and supportive phases may have to be interpolated in order to make the therapeutic program constructive. An unsatisfactory behavior pattern is first destroyed and then a new and better pattern is fashioned. It is well to keep in mind that in a sense a patient must be made to feel accepted before he can be changed to any significant degree.

Unless the therapist understands psychodynamics, there is little he can do for the patient. Knowledge of unconscious mechanisms enables the physician, without apparent effort, to steer the patient's verbalizations in such a way that he gradually becomes aware of the hidden meaning of his "double-talk" and therefore may deal with it realistically. If the physician attempted to tell him what is wrong in the beginning, the patient would not believe it because development of his symptoms is a protective mechanism and he is unconsciously reluctant to part with them.

PHYSICIAN-PATIENT RELATIONSHIP

Any type of psychotherapy is built around this professional relationship, a mutual interaction of a subtle but powerful force which permeates every phase of the treatment. This desirable attitude of mutual respect, esteem, and candor between the patient and the physician has been aptly described by the French as "rapport." It must be realized that the confidential nature of the relationship and the dependence of patient on physician may favor development in the patient of exaggerated feelings of affection or resentment toward the physician when psychotherapy is prolonged. Such reactions may, of course, occur in any prolonged confidential physician-patient relationship.

In interpretive psychotherapy this relationship provides support which enables a patient to face his difficulties during the therapeutic experience; it also contributes toward the tension under which the therapeutic process advances. In other words, it can be considered the balance between the support and strain necessary for progress of the treatment. Warmth gives support in the development and maintenance of the relationship; whereas, coldness and aloofness may defeat the therapeutic aim. Yet warmth does not imply premature commitments or overemphasis of the purely conventional social interest. The therapist must maintain his objectivity. In insight therapy, unwitting, non-professional participation may interfere with the therapeutic plans and introduce unnecessary complications. It thus becomes important to steer the relationship along professional lines; this is a frequent source of difficulty for the inexperienced therapist. The first axiom of proper psychotherapy is that the

physician never use (consciously or unconsciously) the patient for gratification of his own emotional needs.

The patient may be considered to be the confused child while the therapist's role is that of a mature parent who offers a secure and permissive setting in which the patient explores the unsolved problems of his infancy and childhood. Psychotherapy must offer not only the needed parental substitute but also the honest expression of the psychotherapist's attitude towards the patient's productions during treatment. Of particular interest is the manner in which the therapist responds to the patient and the way his behavior provokes reactions on the part of the patient. Theoretically, a psychotherapist should be able to evaluate his own as well as the patient's psychologic status during the interviews. An impasse in therapy may be due to the therapist's lack of sensitivity and dynamic force, the latter perhaps being impaired by overwork and excessive responsibility, or it may be related to the therapist's own motivation, to change in the meaning of the interview to himself, or to overidentification with the patient in a manner to satisfy the therapist's own emotional needs.

AIM OF PSYCHOTHERAPY

As in any form of treatment one of the aims of psychotherapy is relief of symptoms. In interpretive psychotherapy, major stress is placed on bringing unconscious factors to awareness. However, opinions differ as to whether the uncovering is the cause or the result of the improvement. It may be asked: (a) Does more knowledge about one's self necessarily change anything? (b) Does the physician-patient relationship invariably operate as an incentive to change? Or (c) does realization by the patient that his emotional drives are "irrational" actually enable him to change? It is well known that reason is not an effective agent for combatting emotional forces, and, moreover, self-knowledge in itself is not enough. Undermining the artificial structure of the neurosis will have no therapeutic effect unless at the same time something constructive in the patient starts to grow. Just as there are recuperative physical forces in the body which aid a patient's recovery from a somatic illness, there are healing mental forces which give the psyche resilience; given favorable conditions, the human being has a natural urge to develop his potentialities. It may be said then that the ultimate aim of psychotherapy is to help people achieve a greater inner freedom so that they may grow up emotionally.

DO'S AND DON'TS

In general, no harm can result from a warm supporting attitude and from offering the patient opportunity for ventilation. If ventilation should be associated with pronounced emotional abreaction, one must be sure to maintain one's objective supporting attitude in the face of this abreaction, even if it should include the expression of hostility toward the physician. Only the thoroughly experienced should attempt to interpret; much damage can be done by novices. The less the psychotherapist contributes to the conversation, the more information he will obtain; the less he says, the less he will have to take back later. It is wiser to listen, rather than talk, to patients and not to give advice on such involved emotional matters as marriage and divorce. The psychotherapeutic interview is in a sense a battle of wits between the patient and the physician, with the patient intuitively setting traps for the therapist. The safest reply when the therapist is put "on the spot" is to rephrase the question and have the patient answer it.

It is impossible to over-emphasize the futility and dangers of naive confrontation, which is the most frequent mistake of the immature psychiatrist and the well-intentioned general practitioner who has read psychiatric theory without having sufficient clinical experience in its procedures. Superficial confrontations which merely describe the patient to himself without long and painstaking preparation inevitably precipitate resentment and mobilize the patient's defenses. Premature confrontations which reach to deeper levels, challenging the patient to recognize some of his deeper

yearnings, fears and hates, must either be rejected by the patient as far-fetched or else they will precipitate the patient into unmanageable terror, guilt, or depression. We must recognize that it may be dangerous to attempt to argue a patient out of cherished ideas, even about seemingly impersonal affairs, such as science or politics, since argument may be as dangerous as confrontation. If it succeeds in breaking down the defensive barrier of symptoms, all that can be achieved is a sudden eruption of overpowering emotions.

If the patient improves only at the price of too much dependence upon the therapist, or if he should become dependent upon the therapist without improving, he should then be referred to a physician with more skill and experience in psychiatry.

THE THERAPIST

What are the requirements of a good psychotherapist? To begin with, he should have intuitive understanding of man's deepest needs and conflicts. Next, he should have the desire to do something about these needs and conflicts, together with patience and ability to endure strain and discomfort in a therapeutic situation in order to time one's technique properly. The philosophy of the psychotherapist should embody an abiding respect for the integrity of every individual and awareness of the limitations and potentialities for emotional growth in the patient.

An appropriate psychotherapeutic attitude must be engendered in the general practice of medicine. This consists of the necessary attitude of tolerance and acceptance, of not avoiding unpleasantness, and of not condemning or passing judgment. It is not only one's overt actions that are important but also one's subtle and implicit attitudes, since patients (like children) are extremely sensitive to "psychologic atmospheric changes" regarding the physician (adult) who is involved.

There are two ways of understanding human beings. One is by employing the techniques of logic. The other, which is perhaps even more important, is empathy. Stated simply, this means putting one's self in the other person's place and "feeling with that person"—a process called temporary identification. It is essential to make allowance for the merits of common sense and for the intuitive factors in psychotherapy; although these intuitive or subconscious factors are not yet thoroughly understood, their value to psychotherapy is real.

CANDIDATES FOR PSYCHOTHERAPY

What about the patient? Who are good and who are poor candidates for psychotherapy? In making decisions regarding the suitability of patients for psychotherapy, we must bear in mind that sometimes a neurosis may be the only solution to the patient's difficulties. Often anything but the most superficial emotional support is contraindicated. For interpretive psychotherapy to achieve satisfactory results the patient must come to therapy with certain assets. The therapist must evaluate the patient's (a) level of intelligence, education and sophistication, (b) age, (c) degree of adaptability, (d) ability to assume responsibility, (e) real environmental situation, (f) sincerity, motivation and incentive to change, and (g) degree of secondary gain obtaining from his illness.

Extremely intelligent patients can be as difficult to treat as patients with little intelligence because geniuses often will attempt to turn the therapy into a battle of wits with the physician until it arrives at a complete impasse. Lack of a certain degree of education and sophistication may be a serious barrier to the attainment of suitable insight by the patient. Moreover, the secondary gain from a patient's neurotic illness may be such as to neutralize any incentive to change.

CONCLUSION

In psychotherapy an attempt is made to have the patient "work through" his old stereotyped behavior patterns rather than just re-enact them. This may be possible because the attitudes of the therapist may in due course be emotionally appreciated by the patient as different from those attributed by the patient to early parental figures. Thus helping him, in the process of

this partial repetition, to take account of the differences between past and present may constitute the corrective emotional experience needed to liberate him from the neurotic behavior patterns that failed to solve his problems. In this way, the uncovering of facts is merely a necessary part of a total process of undoing experience and of reconditioning the patient.

———o———

THE ROLE OF THE PHYSICIAN IN THE SCHOOL HEALTH PROGRAM*

R. L. SIMMONS, M. D.†
NEW ORLEANS

The object of this presentation is to point out some of the opportunities available to the private physician through participation in the school health program, whereby he may fulfill in part his interest and obligation in the prevention of illness and the promotion of an improved health status for the individuals in his community.

An increasing number of physicians are recognizing and acknowledging that they have a responsibility to the communities in which they live and work that extends beyond the previously accepted standard of simply diagnosing and treating disease as it occurs. This expanding concept of the need for supervision and promotion of health in its broadest sense is reflected in the wording of the definition of health as found in the preamble of the constitution of the World Health Organization. This definition is rapidly gaining general acceptance. It is worded as follows: "Health is a state of physical, mental and social well-being and not merely the absence of disease or infirmity."

We are all anxious to improve our personal health, and most of us are interested in the general state of health manifested in our community, state and nation. Our medical profession has justifiable pride in the fact that the United States is considered to be the healthiest of the large nations. It should be kept in mind that our national level of health is a composite picture of the health status of the individuals who make up our communities. The fact still remains that the health of the individual is our ultimate concern, and it is a generally accepted concept that the private physician should and must carry the major responsibility for the preservation and improvement of the health of our individual citizens. When compared with other countries, our achievement in the field of health appears to be very good; however, when compared with a standard based on what could have been accomplished in the light of our greater opportunities and better resources for the improvement of health, we must recognize that there is still a great deal which we have failed to accomplish.

As we become aware of the changes in the types of diseases which have become predominant and the changes in the environmental and social conditions which influence the major portion of our population, we are forced to the realization that no one professional group or type of service can successfully meet the challenge of the variety of influences and circumstances which determine our individual and community health status. It should be evident that a cooperative effort must be developed between the medical profession and the specialized skills in other fields if we ever expect to reach the goal of optimum health in its broadest sense.

As we search for some practical method by which cooperative effort may be applied to meet the health problems of the community, it becomes apparent that the limitations of personnel, resources, physical facilities and available time and money would make it impossible to exert a significant influence on the entire population of a community simultaneously. Several alternative courses of action have been considered. One course, which is believed to have a great deal of promise, is the development of an effective school health program. The term "school health program" has gained con-

---

*Presented at the Seventy-second Annual Meeting of the Louisiana State Medical Society, Shreveport, April 30, 1952.

†Professor, Public Health and Preventive Medicine, L. S. U. School of Medicine.

siderable general acceptance because it is brief and because the activities which it brings to mind are associated for the major part with the school. It might be better to use a more descriptive title, or at least to reach a common understanding to the effect that what we are actually dealing with is a program for the supervision of the health of school age children. The shorter terminology will be used here with the understanding that it has the significance indicated. This distinction in terminology is emphasized because it is considered important to realize that a good school health program is much more than some specialized activity that comprises a small portion of the general school program. The school health program is really the application of those individual and group measures which have a particular importance in relation to the health of a certain portion of the population of a community.

IMPORTANCE OF SCHOOL HEALTH PROGRAM

The development of a good school health program is considered to be of special importance for several reasons.

1. In this country, practically everyone who reaches adult status has spent a few, and sometimes many, years of his earlier life under the direct influence of the school system. In this way, the school exerts an influence on a greater portion of the population than any other part of our community structure.

2. The school exerts its influence during a period in life when very important patterns of behavior are being formed.

3. Because the school brings young citizens together for comparatively long periods of time and under reasonably comparable circumstances, it becomes possible for certain influences to be applied to a fairly large portion of the population with a minimum expenditure of time and money, as compared to what would be required if an approach were made to the same population in their individual homes.

4. When the teaching and administrative staff of the school are willing to become an integral part of the personnel who carry on the school health program, and when they assume responsibility for performing certain activities related to the school health program in which they are competent, particularly when given proper professional supervision or guidance by physicians and related health workers, it then becomes possible to provide a relatively personal supervision for the development of proper health habits and activities for an extensive portion of the community on a basis that would be practically impossible, and certainly impractical, if attempted through other means.

Many other examples could be given to illustrate the importance of a school health program as a means for approaching the health problems which involve this portion of the population.

FACTORS ESSENTIAL IN SCHOOL HEALTH PROGRAM

There are other reasons why it is not only important but necessary for the community to provide a program for the supervision of the health of the children who are brought together in the schools. Since children are required by law to attend school, the community is obligated to assume the responsibility of protecting them from the various hazards and harmful influences which may be caused by bringing a large number of individuals together. The following factors should be kept in mind. They represent not only the hazards which must be modified or eliminated, but also, in many instances, opportunities which should be utilized for the improvement of health. These factors will be mentioned briefly here. They have been discussed at greater length in other publications.

1. Supervision must be provided for the environment in which the school child spends a considerable part of his time. This involves proper construction of building and equipment with adequate safety precautions, provision of proper heating and ventilation, as well as proper lighting, supervision of the sanitation of the environment with emphasis on proper excreta disposal, handwashing facilities and sanitation of food services.

2. Experiences in relation to what has come to be known as "group living" are

very important in connection with the circumstances which a child encounters as he enters school. Emotional problems frequently develop in relation to competition between children who formerly led a comparatively sheltered existence within the family circle. "Group living" experiences also involve a change in the relative importance of opportunity for infection with contagious disease. It is granted that a child should have been immunized satisfactorily against diseases such as diphtheria, whooping cough, small pox, and others during the preschool period. Booster injections are indicated just before or at the time the child enters school. There is still an increased hazard from the standpoint of certain parasitic infections and diseases such as the common cold, mumps, measles, and other diseases of similar nature.

3. Attendance at school provides an opportunity for educational experiences related to improvement of health, as well as the acquiring of factual information of general nature. This has been mentioned previously. It should be emphasized here that information relating to health habits should be transmitted by way of example on the part of the teacher, the visiting nurse, and others associated with the health program, rather than by simply presenting an uninspiring course of instruction with the title "Health and Hygiene" or some similar restricted activity. Proper preparation and the development of wholesome attitudes on the part of the teacher and the school nurse are very important factors in transmitting the idea to the student that healthful living is of basic importance and should be practiced consistently.

4. A teacher who has received proper orientation and who is given proper supervision can carry on a very effective program of observation of the pupils in relation to proper patterns of growth and development and the occurrence of illness which in some instances may be of communicable nature. Day to day observation of the pupils by the teacher is much more effective in determining which of the children should receive special medical attention than the periodic long interval examination that is sometimes carried out by the school nurse or by physicians who see the child for a short period of time under isolated circumstances.

RESPONSIBILITY OF PHYSICIAN

The activities emphasized above may seem to indicate that the physician has only an incidental responsibility in relation to the school health program. It is true that much of the basic activity can be carried on by persons with a relatively small amount of technical and professional training, but it must be borne in mind that all of the cooperative effort exerted by the teacher, the nurse and the sanitarian from the health department, the health officer, the parent groups and other related workers depends for its success on the participation and cooperation of the private physician. One of the basic objectives of the program is to develop a relationship between the physicians of the community and the families they serve in which the children of school age, and also other members of the family will receive the specific medical care and guidance that may be indicated on an individual basis and under conditions which will promote the intelligent use of the physician for preventive services throughout the adult years of the citizen as well as during his school period.

Because present day circumstances have made it necessary for the physician to apply his time and effort in such a manner that his skills will not be wasted on activities that can be handled successfully by persons who have a lesser degree of professional training, the school health program comprises the ideal objective of frequent examination of each school child by a physician and offers the alternative of screening and observation procedures carried out by teachers under the supervision of professionally trained persons, such as the public health nurse. Thus, the interval between routine examinations may be extended considerably and still maintain a provision whereby children who develop specific needs for the personal attention of the physician can be referred at the appropriate time. Of course, there will be many instances in which chil-

dren of school age will not receive attention from their family physician in the manner just described. Parents may fail to provide proper medical attention for a number of reasons. They may not be aware that a problem exists. This occurs in the well-to-do families as well as among the indigents. In many instances, the parents may delay action because they are unable to pay for the necessary medical services. In some cases the parents have a neglectful attitude, and feel that it is not really important to consult the physician unless some really serious disease occurs. In situations like these, the educational aspects of the school health program become important in correcting improper attitudes and lack of information. There will probably always be a need for the school or community services to provide for a medical examination of a certain number of students who cannot make satisfactory arrangement on an individual basis.

It is important that each physician in the community participate to some extent in the school health program in relation to providing for the medical needs of the children of families with whom he is associated. This participation will be in the form of carrying out the physical examination and other survey procedures required for each child at the time of admission to school and at subsequent intervals. Also, the immunization procedures required, or found desirable, should be done by the family physician whenever possible. Conference with school authorities concerning special recommendations for certain children under his care in relation to physical training requirements, observation of certain habits and emotional problems, etc., may be indicated in many cases. The family physician should develop an understanding of the methods used by the school for detection of physical impairment and the referral of the child for a medical evaluation. Detection of physical defects and disease in an early stage will be of no value if proper correction is not available through the family physician or some appropriate community facility.

In addition to the relationship mentioned above, the physician also has an obligation to serve as a consultant or counselor on the school health council or similar group which has been formed in many schools. These councils usually consist of representatives from the teaching and administrative staff of the school, the health agencies of the community, the organizations associated with community social and welfare programs, the parent organizations of the school, the personnel who supervise the food service of the school and other related services; and frequently, the group also includes other persons from the community who are interested in the development of better health for the school child as well as on a general community level. All too often, the physician has been invited to participate, but has not considered it important to spend time in this type of activity. Since the basic objective of this group is to determine the local problems and factors that influence the health of the individual children of the school and to plan some action that will help to bring about better health for the individual child, and since it is generally accepted that the private physician should bear a major responsibility in maintaining and promoting the health of the individual citizen in his community, it would seem that the physician has an obligation to lend his professional influence and judgment to groups such as this in order that their planning and action may be done in the proper manner.

A considerable expansion of this topic might be undertaken but for the purpose of this presentation it is best to conclude at this point with the following remarks.

As a result of serious thought and effort which has been applied on a national as well as a state and local basis, a school health program is being developed which will be of increasing benefit in relation to the improvement of health throughout the community as well as in the school age group. An increasing degree of cooperation is being brought about between community minded groups and individuals with each special field of interest coming to realize that no one person or group can do the job alone. School teachers and school adminis-

trators are setting aside specific periods of time in which the teachers receive specific training and orientation in order that they may assume responsibility along with the parent for a more efficient guidance of the school child and the factors that influence his health. A specialized team which provides for the instruction and orientation of teachers and members of school health councils is already active in various areas of the state. Their work has been planned carefully over a period of years before any definite action was begun. A large group of interested and willing workers is available to do something definite about the health problems of the school age child and also to a considerable extent about the health problems of the community in general. In many areas these groups still lack a very important part of their team. They have not been able to gain the proper understanding and participation from their local physicians.

The development of a sound health structure in our communities may be compared to the construction of a building. We may have many workers who possess certain specialized abilities and many who may not be specially trained but are willing to do whatever labor they may be able to provide. The actual construction of the building must be guided by an over-all plan in order that it may be safe, useful, and acceptable. An architect and a construction engineer are necessary to formulate the design and to supervise and integrate the efforts of the various types of workers who do the actual construction.

The school health program is attempting to build a safe, useful, and acceptable structure of community health, beginning with the school age children. The physicians of the community possess the training and skills that are necessary to plan the type of structure that is most effective and desirable and to integrate the efforts of the various groups who are willing and able to do their share of the work. The physicians cannot possibly do the whole job alone. The work needs to be done. There are many who are willing to work but their efforts cannot succeed without the guidance of the physician and the participation of the medical profession. Those who have brought the school health program to its present status not only recognize the need for guidance and participation on the part of the physicians of the community but they also sincerely want the private physician to assume the position of leadership which he should consider to be not only his responsibility but his privilege.

Organized medicine appears to be anxious to preserve the relationship between the private physician and the maintenance and improvement of the health of the individual citizen. A properly organized school health program seems to offer a reasonably effective means whereby the private physician can fulfill a part of his obligation to his community and while serving as an individual he can guide the activities of other individuals and organized groups in a general effort to achieve a status of individual and community health that is compatible with the opportunities and resources which are available in our communities and our nation.

———o———

HEAD PAIN OF NASAL ORIGIN

JACK R. ANDERSON, M. D.
AND
WALLACE RUBIN, M. D.
NEW ORLEANS

The otolaryngologist is confronted with the problem of headache diagnosis many times each day. This stems from the fact that many of the laity still believe so-called "sinus trouble" is the cause of most head pain. Though this is not true, the source of the disturbance so often falls within the realm of the rhinologist that no headache investigation can be called complete without a thorough examination of the nose and paranasal sinuses.

As a result of a survey of over 200 cases

From the Department of Otolaryngology, Tulane University of Louisiana School of Medicine, and the Eye, Ear, Nose and Throat Hospital, New Orleans, Louisiana.

we have found that most headache of rhinogenic origin arises within the nasal cavity and is not due to "sinus trouble". Furthermore, our studies convince us that headache originates within the nasal cavity more frequently than is generally realized.

There are several good reasons why the rhinogenic origin of headache is frequently overlooked. First, pain originating within the nasal cavity is usually not localized but is referred to other areas about the head and neck. Second, as Wolff[1] has shown, pain originating within the nose may be complicated by pain arising from secondary sustained contractions of the skeletal muscles of the head and neck; this secondary muscular pain may be more severe than and may outlast the primary pain. Third, in some individuals pain of nasal origin may give rise to a secondary vasodilating type of headache; this phenomenon may be confused with migraine, histaminic cephalgia, and other types of vasodilating headaches. Another reason why the nose is overlooked as a source of headache is that the patient frequently does not complain of nasal blockage; there may be only slight stuffiness which is easily ignored or does not seem worthy of mention. Finally, the otolaryngologist frequently dismisses the nose as a source of headache because so-called "cocainization" of the sphenopalatine ganglion has failed to relieve the pain; the fact is ignored that the pain may originate in areas supplied by the ethmoidal nerves or the nasal branches of the anterior superior alveolar nerves.

DIAGNOSIS

The most valuable aid in headache diagnosis is a thorough history. We feel this can be best accomplished by the use of a form as a framework on which the history can be developed. Use of such a form does not mean that individuality need be sacrificed, for the physician can pursue any line of questioning which appears diagnostically promising. Inquiry should be made as to the onset, duration, characteristics, site, and radiation of the pain. In addition, questions concerning associated manifestations in the form of symptoms referable to the ears, nose, and throat should be included. A review of systems and a past history often prove invaluable. Finally, an attempt should be made to determine the state of the patient's mental health.

The physical examination should be equally complete. The ideal situation is to see the patient during an attack. This enables one to better evaluate the physical findings and to employ several valuable diagnostic tests. Each case should have the benefit of nasopharyngoscopy, posterior rhinoscopy, indirect laryngoscopy, a nasal smear for cytologic study, and a gross evaluation of the function of the temporomandibular joint. The blood pressure should be recorded, and a complete blood count and sedimentation rate done. X-ray studies of the paranasal sinuses are invaluable because, in addition to sinus pathology, they often enable one to discover tooth impactions and other abnormalities about the alveolar processes. If mastoid films are indicated, they should include studies of the petrous tips. At times it may be desirable to obtain view of the cervical spine and of the various foramina about the base of the skull and also soft tissue films of the neck.

The neuroanatomical arrangement in the nose is ideal for diagnostic study because the rhinologist is able by selective anesthetization to eliminate any head pain arising within the nasal cavity. As we have mentioned previously, the nasal cavity is supplied with sensory nerves originating from three sources. The largest supply is derived from sensory branches of the maxillary nerve which enter the nose through the sphenopalatine foramen. The remainder is mediated by the anterior and posterior ethmoidal branches of the ophthalmic nerve and by a small nasal branch of the anterior superior alveolar nerve. It is again emphasized that the nasal cavity cannot be ruled out as a source of headache unless all three of these nerves have been blocked and still the pain is unrelieved. It should be further noted that shrinkage alone is often not sufficient to relieve pain of nasal origin; anesthetization is required.

We have previously mentioned that, in

our experience, the vast majority of headaches thought to be due to "sinus trouble" originated, in reality, within the nasal cavity. When sinus disease was the primary factor it could usually be easily proven by mucosal shrinkage and anesthetization that most of the pain arose from concomitant inflammation of the nasal structures. These findings are in agreement with those of McAuliffe, Mueller, and Wolff[2] who investigated the sensitivity of various areas in the nasal and paranasal structures. They considered as a one plus pain the sensation produced on the tip of the tongue by a given amount of faradic stimulation. Their findings as to relative sensitivity in non-inflamed nasal structures were as follows:

Area about the sinus ostia	.6 to 9 plus
Nasofrontal duct	5 to 7 plus
Turbinates	4 to 6 plus
Nasal septum	1 to 2 plus
Lining of the sinuses	1 to 2 plus

When inflammation is present the pain threshold is lowered and the structures become even more pain sensitive.

Most headaches of nasal origin are due to mucosal swelling in areas of the nasal cavity where the anatomic structure is such that a focus of irritation is established. It is important to remember that the swelling need not cause complete nasal blockage; often the patient complains only of stuffiness. The structural variations usually encountered include deviations and thickenings of the nasal septum, increase in bulk or displacement of the turbinates, particularly the middle turbinates, increased volume of the nasal cavity, as in atrophic rhinitis, and new growths. At times mucosal swelling over sinus cells whose location cause narrowing of the nasofrontal duct may be the source of the trouble.

The following is a fairly complete list of the various causes of nasal mucosal swelling:

1. Infection
2. Allergic episodes
3. Inhalation of irritating dusts, fumes, odors
4. Chilling of the body surface or of the nasal mucosa
5. Endocrine changes during the menstrual cycle, pregnancy, puberty, the menopause, hypothyroidism, etc.
6. Psychogenic causes: emotional conflict, anxiety, fear, resentment, frustration, tension.[3]
7. Abnormal air currents[4]
8. Conditions causing increased pulse pressure or congestion of the veins of the head, e.g., hypertension, thyrotoxicosis, coughing, stooping.
9. Decreased vascular tone, e. g., hypotension, fatigue.
10. Miscellaneous conditions such as fever, uremia, imbibition of alcohol.

The fact that we have considered the problem of nasal mucosal swelling at some length does not mean that the paranasal sinuses should be ignored when seeking the cause of headache. It is well known that pain can and does originate in these structures and the usual diagnostic procedures should be carried out.

Mention has been made of the fact that pain of rhinogenic origin may give rise to secondary vasodilating types of headache which mimic migraine and histaminic cephalgia. We should like to briefly discuss this aspect of the problem.

Most commonly these secondary vasodilating headaches follow a more or less prolonged period of aching pain arising from the primary source in the nose or paranasal sinuses. When the vasodilating phase begins, the pain changes from an aching to a pulsating or throbbing type. Later, apparently when edema of the blood vessel walls has occurred, the pain again becomes aching in nature. As can be seen, this sequence of ache-throb-ache resembles migraine. Other factors serve to further confuse the situation. Nausea and vomiting often accompany these headaches; this is probably of neurogenic origin since many people develop these symptoms when they suffer with severe pain. Also, there is the fact that the history often reveals that many members of the patient's family suffer from headaches. This may be of no significance, but, on the other hand, it must be remembered that there is often a fa-

milial tendency towards some of the causes of nasal mucosal swelling, as for example, allergy, endocrine patterns, and psychogenic reactions to stress. Of course, they may be differentiated from migraine quite easily. In the first place, they may be prevented or relieved by nasal shrinkage or anesthetization, whereas this is not possible in migraine. Secondly, the usual prodromata seen with migraine are not present.

On rare occasions these secondary vasodilating headaches begin suddenly and last for variable periods of time. When of short duration they resemble histaminic cephalgia. In the latter instances, there may be such accompanying nasal symptoms as rhinorrhea, stuffiness or blockage of the nose, injection and tearing of the eye, and increased perspiration of the face. Some individuals become nauseated and may vomit. If the headache is prolonged it usually goes on to an aching phase, ostensibly when edema of the blood vessel walls has occurred.

Both types of vasodilating head pain of nasal origin can be relieved by nasal shrinkage and anesthetization provided these measures are used before edema of the blood vessels walls has occurred. Likewise, they can be relieved by any method which causes compression of the proximal portion of the involved vessels or generalized vasoconstriction. The most satisfactory systemic vasoconstrictors now available are the ergotamine derivatives. In this connection it is interesting to note that the effectiveness of these preparations is said to depend on constriction of branches of the external carotid artery. It must be remembered that it is from branches of this artery that the nasal mucosa receives most of its blood supply. One may speculate, with some degree of logic, therefore, that, in some cases at least, the effectiveness of these drugs results not only from vasoconstriction of the extra-nasal branches of the external carotid artery, but also from mucosal shrinkage caused by constriction of its intranasal branches.

Just as is the case in any head pain of rhinogenic origin, these secondary vasodilating headaches, if sufficiently prolonged, may be accompanied by pain arising from secondary sustained contraction of the cervical and cranial muscles. The latter pain may long outlast the pain arising from the primary source and cannot be relieved by shrinkage and anesthetization of the nasal structures. It will persist until the muscles have relaxed or until they have been infiltrated with a local anesthetic.

TREATMENT

Treatment should be dictated by common sense principles. The rhinologist is usually faced with the basic fact that he is dealing with a nose which, because of its anatomic structure, cannot accommodate a certain amount of mucosal swelling without pain being produced; if it could accommodate such swelling, there would be no pain. Two courses may be followed. First, an attempt can be made to prevent mucosal engorgement. If this can be easily accomplished, this course should be followed. On the other hand, when prolonged treatment is required, as in allergic, gynecologic, or psychogenic disturbances, for example, we feel that it is better to correct such nasal disorders as exist so that when mucosal swelling does occur pain will not be produced. Naturally, if the primary factor is of a serious nature, it should be treated; in some instances a combined method of therapy is indicated. There is no place in the treatment of headache for complete reliance on sedatives and analgesics.

Heading the list of medical treatment of head pain of rhinogenic origin is allergic management; this includes avoidance, hyposensitization therapy, and the judicious use of antihistaminics, alone or in combination with vasoconstrictors. The use of nose drops in the Parkinson position is often of value; sometimes they may be beneficially combined with a topical anesthetic. Histamine therapy has been a disappointment to us except in cases of classical histaminic cephalgia; in such instances we have had uniform success with combined subcutaneous and sublingual therapy. Prolonged oral administration of nicotinic acid seems to have been of benefit in some cases due to nasal

allergy, but these results are difficult to evaluate. When sinusitis is present, routine methods of management are effective.

A few words must be said regarding so-called "cocainization of the sphenopalatine ganglion." Doubt exists as to whether the ganglion can be anesthetized by topical anesthesia, and also, whether it plays any part in headache production. However, no one doubts the effectiveness of field block of the nasal branches of the maxillary nerve which enter the nose through the sphenopalatine foramen. This procedure is more important diagnostically than as a therapeutic measure. Sometimes, however, it apparently serves to break a self-perpetuating pain cycle. If a patient requires frequently repeated procedures of this type, some more definitive method of therapy should be used.

The ergotamine derivatives are such important therapeutic agents in the treatment of vasodilating headaches that we should like to report the results of a clinical evaluation of a new dosage form. Thirty patients who had previously been administered these preparations by mouth and hypodermically were asked to compare the results with those obtained when rectal suppositories containing 2 milligrams of ergotamine tartrate and 100 mgm. of caffeine* were used. Without exception, in spite of the method of administration, they preferred the suppositories to other dosage form. They not only believed the suppositories were more effective, but their action seemed more prolonged. Moreover, many who disliked the oral forms because of the accompanying nausea and vomiting were able to use the suppositories with no ill effects; in fact, only one patient claimed the suppositories caused nausea. Hansel[5] reports that the effectiveness of the ergotamine preparations may be considerably enhanced by combining them with ephedrine or propadrine (R) by mouth.

Surgically, a wide range of effective procedures are available. Those most frequently indicated are submucous resection and measures which either displace or reduce the bulk of one of the turbinates. A submucous resection is doomed to failure unless adequately done; this implies that more than septal cartilage be removed. When the ethmoidal nerves are the ones irritated, bone must be resected up to the cribiform plate; at other times it may be necessary to remove bone up to the face of the sphenoid sinus. Lateral or medial displacement of a turbinate by fracture is often of value. An enlarged turbinate may either be crushed or submucousally resected. We have found that many cases of "Sluder's lowerhalf headache" are relieved by lateral displacement of the middle turbinate. At times, crushing or capping of the ethmoidal bulla or cells protruding into the lumen of the nasofrontal duct may be indicated. Sinus surgery of various types may be necessary.

*The suppositories were supplied by Sandoz Chemical Company.

CONCLUSIONS

Since head pain may arise from disturbances in nasal physiology due to such a large variety of environmental and systemic conditions, it is not unlikely that the nose plays a greater part in headache production than is generally realized. Its importance would be better appreciated if more attention were given to a thorough history and nasal examination and if the various phenomena resulting from pain of nasal origin were understood and remembered.

SUMMARY

1. Most pain of nasal origin arises within the nasal cavity and not within the paranasal sinuses.

2. The rhinogenic origin of head pain may be easily overlooked for several reasons.

3. Vasodilating pain secondary to nasal disturbances may simulate migraine and histaminic cephalgia.

4. The cause of rhinogenic pain and its treatment are discussed.

5. It is concluded that the nose plays a greater part in headache production than is generally realized.

REFERENCES

1. Wolff, H. G.: Headache and other head pain. New York, Oxford University Press, 1948.

2. McAuliffe, G. W., Mueller, G. C., and Wolff, H. G.: Experimental studies on headache: Pain originating in

nasal and paranasal structures, New York State J. Med. 50: 1113, 1950.

3. Holmes, T. H., Goodell, H. Wolf, S., and Wolff, H. G.: The nose: An experimental study of reactions within the nose in human subjects during varying life experiences, Springfield, Illinois, Charles C. Thomas, 1950.

4. Proetz, A. W.: Air currents in the upper respiratory tract and their clinical significance, Ann. Otolaryng. 60: 439, 1951.

5. Hansel, F. K.: Personal communication.

DEVELOPMENT OF BLEEDING GASTRIC ULCER IN A CHILD WITH ACUTE RHEUMATIC FEVER TREATED WITH ACTH AND CORTISONE

C. L. BUSBY, M. D.*
J. H. SHIPP, M. D.*
E. B. HARRIS, M. D.*
D. E. RUSSELL, M. D.*
J. E. HOLOUBEK, M. D.*

SHREVEPORT

Hench and his co-workers[1] report that the use of ACTH and cortisone in acute rheumatic fever has been of considerable value, especially in cases which fail to respond to salicylates. This has been confirmed by others.[2-5] Thorn[6] reported that peptic ulcer symptoms definitely appear to be accentuated by ACTH and cortisone therapy. Beck and his associates[7] report a 34 year old rheumatoid periarteritis nodosa who had a previous history of gastric fullness. Gastrointestinal x-rays were negative. After seven days of ACTH, 100 mgm. a day, she developed abdominal pain. A laparotomy was performed, and a perforation was found which was felt to be due to an acute duodenal ulcer. Habif, Hare, and Glaser[8] reported a 54 year old woman who had been given ACTH for amyotrophic lateral sclerosis. After thirty-six days of treatment, she developed severe abdominal pain, and roentgenograms revealed free air under the diaphragm. She was given medical management and improved. A gastrointestinal series revealed a deformed duodenal cap and an ulcer crater. Gerry Smythe[9] reports 3 cases of recurrence of peptic ulcer during treatment with pituitary adrenicorticotropic hormone from a total group of 79 cases. Holoubek, Holoubek, and Langford[10] report one case of a recurrent duodenal ulcer after a vagotomy following a course of cortisone treatment.

The incidence of gastric ulcer in children is known to be extremely low.[11-13] Duodenal ulcers are more common and more frequently found in males. Hemorrhage is the most common complication and may be fatal. Pyloric obstruction and perforation do occur and require surgical intervention. These ulcers usually respond to treatment with a bland diet, antispasmodics, and antacids.

CASE REPORT

A 12 year old white male was admitted to the pediatric service of Shreveport Charity Hospital on January 4, 1951, with chief complaint of joint pains and fever. He was in good health until one week prior to admission, when he developed pain in his left ankle. He was unable to walk without marked difficulty, and the ankle had become warm and swollen. The following day he had pain in his right knee, right wrist, and right elbow. There was no swelling of these joints; only pain on movement. His appetite became poor, fever persisted, and he was brought to the hospital. There was no history of sore throat or upper respiratory infection prior to the onset of fever. His sister was treated in this hospital about one year ago for rheumatic fever. Patient had measles, whooping cough, and hookworm in the past. The remainder of the system review was essentially negative.

Physical Examination: On admission revealed a well developed, thin, white boy who appeared acutely ill. Temperature was 102 F. There were enlarged cervical and axillary lymph nodes, bilaterally, measuring up to 1.5 cm. in diameter. The pharynx was mildly injected. Lungs were clear to percussion and auscultation. Blood pressure 120/80. Heart was slightly enlarged to the left. There was a grade two systolic murmur heard at the apex. Heart rate was 120/min. with regular rhythm. Abdomen was negative. The left ankle was hot, swollen, tender, and painful to manipulation. There was also tenderness and pain on movement of the right knee, wrist, and elbow.

Laboratory Work: On admission revealed a hemogram as follows: Hemoglobin 11.5 grams or 74 per cent; red blood cells 4.04 million; white blood cells 15,600 with 89 per cent segmented polymorphonuclears, 2 per cent stabs and 9 per cent lymphocytes. Urinalysis had specific gravity of 1.024, acid reaction, faint trace of albumin, 4-5 WBC, and 1-2 RBC/hpf. Hematocrit 35. Sedimentation rate was 31 mm. in an hour. Electrocardiogram showed a complete A-V dissociation with an electrical axis plus 55 degrees. A repeat

*From the Medical Service, Shreveport Charity Hospital, Shreveport, Louisiana.

electrocardiagram six days later showed prolonged A-V conduction time.

Treatment: Patient was started on aspirin, grains 10, every four hours on admission. His joint pains subsided in two days, but his fever persisted. Temperature remained elevated to 100 to 101° F. for the first week.

On January 12, 1951, patient was started on 50 mgm. of cortisone intramuscularly every twelve hours, and was reduced to 50 mgm. every twenty-four hours on January 19, 1951. The last dose was given on January 23, 1951, as the supply of cortisone was exhausted. The sedimentation rate was not affected and remained 30 mm. per hour. The temperature dropped to 99 to 100° F. during this short course, but a rise immediately followed the withdrawal of cortisone.

A Thorne test with 25 mgm. ACTH was done January 24, 1951, with the following results: eosinophil count before ACTH was 340.6, and four hours later was 309.4. ACTH therapy was started on January 25, 1951, giving 25 mgm. every six hours. This was reduced to 10 mgm. every six hours on January 28, 1951, and the supply was exhausted on January 31, 1951, after a total dosage of 495 mgm. had been given. The temperature dropped to normal, but started to rise when the drug had to be discontinued. The sedimentation rate returned to normal while on ACTH, but two weeks after discontinuation it was 33 mm. per hour. The electrocardiogram continued to show prolonged A-V conduction time.

ACTH was again started on February 13, 1951, at a dosage of 25 mgm. every six hours. The dosage was gradually reduced, but continued every six hours until March 13, 1951, with a total of 820 mgm. being given on the second course. The temperature dropped to normal on the third day of this course of ACTH, and remained normal except for an occasional spike to 100° F. There was no further fever following interruption of the drug. After three days of this course the sedimentation rate became 17 mm. per hour and remained there or less. The electrocardiogram gradually returned to normal, and the patient continued to feel fine.

EPA of chest on February 13, 1951, revealed the cardiac shadow to be almost 20 per cent above normal, having increased in size since the admission film. Another chest plate taken on March 3, 1951, showed the cardiac shadow to be smaller, but still about 10 per cent above normal. A loud systolic murmur was heard on the precordium, loudest at the apex during the entire hosipitalization, and is still present. The patient was discharged from the hospital to the Medicine Clinic on March 31, 1951. He was asymptomatic and afebrile with a normal electrocardiogram and a sedimineation rate of 4 mm. per hour.

On April 22, 1951, the patient was readmitted to the Medical Service with fever and a sore throat of about two days' duration. There were no joint manifestations, and no cardiorespiratory complaints. His temperature was 101° F. on this admission. He had no adenopathy, a very inflamed throat, a systolic precordial murmur was present, but there were no other positive physical findings. Sedimentation rate was 21 mm. per hour, and the electrocardiogram was within normal limits. Hemogram revealed: hemoglobin 12.5 grms. or 80 per cent; red blood cells 4.29 million; white blood cells 21,000 with a differential of 71 per cent segmented neutrophiles, 3 per cent stabs, 15 per cent lymphocytes, 6 per cent monocytes, and 5 per cent eosinophiles. Urinalysis was negative. Fever responded rapidly to penicillin and was normal in twenty-four hours.

On the fourth hospital day he vomited about 500 cc. of old and fresh blood, and became pale, cold, and clammy. There was a slight drop in blood pressure, and tenderness was noted in the epigastrium. He responded to conservative therapy of a bland diet, antispasmodics, and antiacids; and experienced no further abdominal discomfort or hematemesis. A G.I. series was done May 1, 1951, and showed a small penetrating ulcer (Fig. 1) on

Figure 1.—Radiographic study of the stomach with barium showing large ulcer on lesser curvature.

the lesser curvature of the stomach in the region of the pars pylorica.

The patient was discharged asymptomatic on

May 2, 1951, to return to Medicine Clinic. He was seen again on May 21, 1951, and repeat G.I. series (Fig. 2) showed no ulcer or other pathology. He

Figure 2.—Radiographic study of the stomach with barium showing complete healing of ulcer after therapy.

was still asymptomatic, and the physical findings showed no change. The last clinic visit was on July 24, 1951, at which time there had been no recurrence of any G.I. or cardiorespiratory symptoms. Physical examination revealed only an enlarged heart with a grade 3 systolic murmur heard over the precordium, but heard best at the apex.

COMMENTS

This case illustrates the definite value of ACTH in acute rheumatic pancarditis that showed no response to acetylsalicylic acid therapy. However, it also shows the danger of developing acute gastric ulcers, even in a young individual. The acute ulcer may be due to the marked increase of uropepsin excretion following the use of pituitary adrenocorticotropic hormone.[14] The depression of the growth of granulation tissue in wounds may have been an additional factor.[15]

SUMMARY

A case report of the development of a bleeding gastric ulcer in a 12 year old child following ACTH and cortisone therapy for acute rheumatic fever. A six week repeat GI series showed no evidence of a gastric ulcer present, and the patient has continued several months without any suggestive history of gastrointestinal disease.

REFERENCES

1. Hench, Philip S., Kendall, Edward, Slocumb, Charles, Polley, H. F.: Effects of cortisone acetate, and pituitary ACTH on rheumatic fever and certain other conditions, Arch. Int. Med., 85:545, (April) 1950.

2. Massel, Benedict F., Warren, Joseph: Effect of pituitary ACTH on rheumatic fever and rheumatic carditis, J. A. M. A., 144:1335 (December 16) 1950.

3. Bell, Gordon, Bell, R. Edward, Wilson, Donald R.: Rheumatic pancarditis treated with cortisone, Canadian M. Assn. J. 63:195 (July) 1950.

4. Rathburn, J. O., McAlpine, H., Manning, G. W.: Cortisone in the treatment of acute rheumatic fever, Canadian M. Assn. J. 65:113 (August) 1951.

5. Spain, David M., Roth, Daniel: Effects of cortisone and ACTH on the histopathology of rheumatic carditis, J. Med. 11:128 (July) 1951.

6. Thorn, G. W. et als: The clinical usefulness of ACTH and cortisone, New England, J. Med. 242:783, 1950.

7. Beck, J. C. et als: Occurrence of peritonitis during ACTH administration, Canadian M. Assn. J. 62:423, 1950.

8. Habif, D. V., Hare, C. C., and Glasser, G. H.: Perforated duodenal ulcer associated with pituitary adrenocorticotropic hormone therapy, J. A. M. A. 144:996 (November 18) 1950.

9. Smythe, Gerry A.: Activation of peptic ulcer during pituitary adrenocorticotropic hormone treatment, J. A. M. A. 145:474 (February) 1951.

10. Holoubek, Joe E., Holoubek, Alice Baker, and Langford, R. H.: Banthine in the treatment of duodenal ulcers, New Orleans M. & S. J. 104:173, 1951.

11. Donovan, Edward J., Santutli, Thomas V.: Gastric and duodenal ulcers in infancy and childhood, Am. J. Dis. Child. 69:176, 1945.

12. Davison, Wilburt C.: The complete pediatrician; Durham, Seeman Printery, p. 47, 1949.

13. Ladd, W. E., Gross, R. E.: Abdominal surgery in infancy and childhood, Philadelphia, W. B. Saunders Company, p. 19, 1941.

14. Spiro, H. M., Rufenstein, R. W., Gray, S. J.: The effect of adrenocorticotropic hormone upon uropepsin excretion, J. Lab. & Clin. Med., 35:899, 1950.

15. Ragan, C. et als: Effect of cortisone on the production of granulation tissues in the rabbit, Proc. Soc. Exper. Biol. & Med., 72:718, 1949.

ECTOPIC URETERAL ORIFICE

A REPORT OF FIVE CASES*

HAROLD A. O'BRIEN, M. D.
JOSEPH D. MITCHELL, JR., M. D.
DALLAS, TEXAS

Ectopic ureteral orifice usually occurs in the posterior urethra, seminal vesicle, ejaculatory duct, or vas deferens in the male; and in the urethra, vestibule, vagina, or uterus in the female. Treatment depends

*Presented at the Seventy-second Annual Meeting of the Louisiana State Medical Society, Shreveport, April 30, 1952.

upon site of drainage, and the condition of the kidney, or portion of kidney, which the ectopic ureter drains. The following case reports deal entirely with ectopic ureteral orifices in the urethra.

CASE REPORTS

Case No. 1. M. M., a woman, aged 23, was seen in 1948, because of fever, chills, frequency and burning on urination, and pain in the left kidney area, of two days' duration. She had suffered from repeated similar attacks since early childhood. These attacks subsided after several days of bedrest, forcing fluids, and urinary antiseptics. On admission, her temperature was 103° F.; WBC 20,000; and the urine was loaded with pus cells and gram negative bacilli. She was placed on bedrest and a forced fluid regime, and given penicillin-streptomycin mixture, intramuscularly, every four hours. At the end of forty-eight hours, she was afebrile and asymptomatic. Cystourethroscopy, at this time, revealed a normal bladder appearance except for the absence of the left half of the trigone and left ureteral orifice. The right ureteral orifice was perfectly normal. Indigo carmine appeared in three minutes from the right ureteral orifice and was present in excellent concentration in four minutes. A No. 5 ureteral catheter was inserted up the right ureter with ease. The urine from the right kidney was normal. A right retrograde pyelogram was taken and regarded as normal. Urethroscopy revealed a small dimple in the midportion of the urethra, just to the left of the midline on the floor. A No. 4 ureteral catheter entered this dimpled area, which represented the left ureteral orifice. Twenty cc. of urine were withdrawn, which grossly exhibited pus. Indigo carmine did not appear from this catheter after twenty minutes. Retrograde pyelogram was taken. Because of the x-ray appearance of the left kidney, which we interpreted as a partially destroyed, hypoplastic kidney, together with evidence of poor function by indigo carmine, we advised her to have a left nephrectomy. However, she left the hospital and returned to her local doctors for further treatment, and we have not heard from her since.

One could have opened this ectopic ureter back in to the bladder, but we did not feel justified in advising such in the presence of a poorly functioning hypoplastic kidney, together with a normal functioning and appearing kidney on the opposite side.

Case No. 2. G. B., a male, aged 27, was first seen in 1945, because of the recent episodes of pyuria, burning, frequency, and fever, which responded fairly well to urinary antiseptics. The first attack began shortly after an accidental gunshot wound of the lower abdomen and dorsum of the penis. On admission, his temperature was 99.6° F.; WBC 10,000. Urine contained many WBC/HPF. There was a superficial laceration of the dorsum of the penis, and well-healed superficial scars on the belly wall. Otherwise, the physical examination was negative with the exception of the prostate. On rectal examination, the right lobe of the prostate was swollen, tense, and tender. It was felt that he had an acute prostatitis. The prostatic secretion was loaded with pus. He was placed on urinary antiseptics and seemed to respond well.

Intravenous urograms were taken, which revealed good bilateral function, with a moderate hydronephrosis on the left, considered to be due to uretero-pelvic junction stenosis.

Cystourethroscopy was performed. The prostatic urethra was inflamed. The right lobe was bulging slightly. Indigo carmine, given intravenously, appeared from the right ureteral orifice in three minutes, and in excellent concentration in five minutes. The left side of the trigone and ureteral orifice were absent. Right retrograde ureteropyelograms failed to reveal any connection between the right and left side. He was kept in the hospital for three weeks, on urinary antiseptics, frequent prostatic massages, and Sitz baths; and continued to improve. During this period, cystoscopy was performed on three occasions, but no left ureteral orifice could be found. He was discharged, to be massaged and followed at home.

Second admission, when patient was next seen, was two years later, in 1947. He had gotten along fairly well, during the interval, on prostatic massages, and urinary antiseptics for occasional attacks of fever, and pyuria. He was admitted to find the opening of the left ureter. Cystourethroscopy, under anesthesia, finally revealed an opening on the floor of the midportion of the prostatic urethra. This was catheterized, along with the right ureter. Urine from the right kidney was normal. There was 15 cc. of stasis on the left, and the urine from this side was loaded with pus. The pyeloureterogram on the left demonstrated the dilation of the lower ureter before it entered the prostatic urethra. Also, the left ureteropelvic junction stenosis with mild hydronephrosis, was apparent.

Utilizing a wire electrode, made by bending the wire stylet through a No. 4 French, olive-tipped ureteral catheter, which could be passed into the left orifice through a panendoscope, the left ureteral orifice and ureter were opened from origin in the prostatic urethra, through the prostatic urethra, and into the bladder to a corresponding location on the left, to the right orifice. The edges of this wound were cauterized as they were cut. His postoperative course was uneventful, and he was discharged on the eleventh postoperative day.

He was next seen four years later, in 1951. He happened to be in the hospital for a hemorrhoidectomy. During the interval, he had had no symptoms, and no treatment. The urine was normal. He

would not consent, at this particular time, to cystoscopy. An intravenous urogram was taken. The ureteropelvic junction stenosis and hydronephrosis on the left were still apparent. However, no dilation of the lower ureter could be seen on these films. He agreed to future checks on this left kidney and ureter, but so far, we have been unable to have him back for further studies.

Case No. 3. L. J. K., a female, aged 2½ years, was seen in 1944, because of keeping wet most all of the time. She had previously been studied and found to have a normal kidney and ureter on the right side, and a double kidney with two complete ureters on the left side. The ureter from the lower segment emptied into the bladder in a normal fashion, but the ureter from the upper segment emptied into the proximal half of the urethral floor. The upper segment of the left kidney, along with half of its ureter had been removed. Otherwise, this was an apparently normal developing child. Cystourethroscopy revealed a strictured and chronically inflamed posterior urethra. The bladder was quite normal as well as the ureteral orifices on each side. Both normal ureteral orifices were catheterized with ease. The urine from each kidney was normal. The bladder urine contained many pus cells. Retrogrdae pyelograms were taken and were interpreted as normal. It was felt that this girl was wetting primarily because of a strictured and chronically inflamed posterior urethra. Her urethra was dilated and she was placed on urinary antiseptics to control the pyuria. She was allowed to go home and have urethral dilatations.

She was next seen four years later, in 1948, at the age of six years. During the interval, she had recurrent attacks of pyuria, frequency, and wetting. These attacks would clear up fairly well on urinary antiseptics and urethral dilatations. Cystourethroscopy was repeated now, on several occasions, when the patient had attacks of wetting, pyuria, and frequency; and on each occasion, a large bulging mass could be seen blocking the internal urethral orifice. This mass could be made to disappear by catheterizing the ectopic ureteral orifice and removing 20 to 30 cc. of urine filled with pus. It was decided that this distal stump of the ectopic ureter was filling at intervals, causing blockage of the internal urethral orifice, and producing the girl's symptoms. She was admitted to the hospital, and under general anesthesia, a No. 3 French catheter electrode was introduced into the ectopic ureteral orifice. This ureteral sac was then opened up into the bladder almost to the normal positioned left ureteral orifice. The posterior urethra was then lightly fulgurated, in an attempt to destory the chronically inflamed lining. Postoperatively, the patient continued to leak urine. She was discharged from the hospital and seen in the office after one month. She complained of frequency, pyuria, and leakage of urine. Her urethra was dilated and she was given more urinary antiseptics to control the pyuria. She was next seen after two months. She still had some leakage, but was improving. The urine still contained some pus. The urethra was dilated. Cystoscopy revealed the bulging sac had disappeared, and the mucosa was fairly clean. The child was not seen after that visit, but a letter from the mother, two years later, in 1950, stated that the patient was doing fine; did not leak anymore, and had no symptoms.

Case No. 4. L. L. S., a white female, aged 13 months, was first seen in 1948, because of episodes of high fever and pyuria since birth. She was markedly undernourished, weighing 12 pounds and 11 ounces. Temperature was 103° F. Marked pyuria was present. An intravenous urogram revealed a normal right kidney with a moderately dilated and elongated ureter, indicating chronic infection. No dye concentration appeared on the left side. Cystourethroscopy was performed. The bladder urine was full of pus. The right ureteral orifice and right half of the trigone appeared normal. The left half of the trigone and left orifice were absent from the bladder. In visualizing the urethra, the left ureteral orifice was found on the floor, to the left of the midline, in the midportion of the urethra. A No. 4 French catheter was inserted up the right ureter with ease. No stasis was encountered. The urine contained a few pus cells. A No. 4 French catheter was inserted up the left ureter to a distance of 15 cm. Thirty cc. of grossly infected urine were aspirated. Retrograde pyelograms were attempted. The right kidney visualized well, and exhibited an elongated, tortuous ureter. The left catheter had coiled in the lower ureter, but enough dye was injected to outline a lower ureter, which was markedly dilated and tortuous.

An electrode was now made from the catheter, which passed up the left ureter; it was inserted, and the ureter was cut back up into the bladder to where its opening should normally be.

The patient was placed on urinary antiseptics, and fluid and food forced. The temperature curve resumed normal after one week, and this baby began eating ravenously. She began to look healthy. She was discharged after three weeks, remarkably better than on admission. She had gained 3 pounds, or a fourth of her weight on admission.

She was next seen three years later, in 1951, at the age of four years. Her mother brought her in for other complaints. Physically, she had developed in size and nourishment to a normal four-year-old. Since the previous admission, she had no more attacks of pyuria or fever. However, she had marked mental retardation. She had not learned stool habits. She still wore diapers. She could sit by herself and stand by herself, but could not say over one or two words. She was still being bottle-fed. Mongolian tendencies and facies were developing. However, cystoscopy was allowed. The bladder urine contained a few pus cells. The opening of the left

ureter was an elongated slit. Both ureters were easily catheterized. The urine from the right kidney was normal. Urine stasis of 15 cc. from the left catheter contained a few pus cells. The right kidney pelvis and ureter appeared better than previously. Filling of the left side was not complete. Indigo carmine studies were not done. No further treatment was considered in this case. Patient was discharged.

Case No. 5. A. R. C., a white female, aged 20, was first seen in 1949, because of recurrent attacks of fever, pyuria, and pain in the left kidney area for four months. These attacks had always cleared up on urinary antiseptics. She was seen because her doctor had cystoscoped her and could not find the left ureteral orifice. She had pyuria, no fever, and was tender in the left kidney area. Intravenous urograms revealed a moderate hydronephrosis on the right side. No dye appeared on the left side. Cystourethroscopy revealed a normally placed right ureteral orifice. The left half of the trigone and ureteral orifice were absent. The urethra was strictured and chronically inflamed. The left orifice was finally found in the mid-portion of the floor of the urethra, just to the left of the midline. Both ureters were catheterized. The urine from the right side contained a few pus cells. Stasis of 60 cc. was found on the left side and this urine was full of pus. Indigo carmine appeared from the right side in excellent concentration in five minutes. It did not appear from the left side after twenty minutes. Pyelograms were taken. An electrode was made, inserted into the ectopic left ureter, and this ureter was opened back into the bladder to where a normal left ureteral orifice should be. The urethra was dilated. The postoperative course was uneventful. The pain and pyuria disappeared on urinary antiseptics. Although no function was demonstrated on this left side, it was felt that the meatotomy-ureterotomy procedure was simple, and we might salvage some kidney function. She was discharged from the hospital to return for follow-up examination.

She returned after three months. She had no symptoms during the interval. The catheterized urine revealed many pus cells. She had married during the interval and was now six weeks along in her first pregnancy. The posterior urethra was still chronically inflamed and strictured. Both ureters were easily catheterized. Urine from the right side was normal. Thirty cc. stasis from the left side contained marked pus. The urethra was dilated. The obstetrician was advised of this patient's condition. All during her pregnancy, she had pus in her urine, presumably from the left side. Her urethra was kept dilated to a No. 30 French at monthly intervals, throughout the pregnancy. She had no complications during the pregnancy, labor, or postpartal period.

She was next seen in March 1951; one year later. Bladder urine contained a few pus cells. The left ureteral orifice was represented by an elongated slit. Both ureters were easily catheterized. Urine from the right kidney was normal. Stasis of 30 cc. was obtained from the left side. This urine contained many pus cells per high power field. The urethra was still chronically inflamed and needed dilating. However, she had no symptoms. Indigo carmine, given intravenously, appeared in excellent concentration from the right side in five minutes. Indigo carmine appeared from the left side in poor concentration in six minutes, and in fair concentration in ten minutes. A pyelogram was taken. The kidney appeared to be somewhat better than originally, and I am sure the function was better. She was advised to keep her urethra dilated to full caliber at periodic intervals. This she did not do.

She was next seen one year later, because of an acute right pyelonephritis of pregnancy. She had chills, high fever, pyuria, and pain over the right kidney, frequency, and burning on urination. She was seven months along in her second pregnancy. Penicillin and streptomycin brought her symptoms under control after four days. Cystourethroscopy revealed the strictured urethra and chronically inflamed posterior urethra. The ureters were not catheterized. The urethra was dilated to a No. 30 French, and the patient was instructed to be seen after three weeks. Four weeks have now gone by, and she has not been seen.

DISCUSSION

All of the preceding cases of ectopic ureteral orifice, located in the urethra, were treated by transurethral means. By making a cutting and fulgurating electrode out of the catheter, which can be passed into the orifice, the method is extremely simple and efficacious. We do not have cystograms on these patients, demonstrating the presence or absence of regurgitation in the ectopic ureter following this procedure. Heminephrectomy or nephrectomy, as a solution to this problem, should be reserved as a last resort, or for those cases in which there is no hope of preserving kidney function. Case No. 3 illustrates that heminephrectomy with partial ureterectomy does not always provide a remedy, and that the distal end of the ectopic ureter may still cause trouble. Division of the ectopic ureter near the bladder with implantation of the proximal end to the bladder is a major operation attended with all the difficulties and complications of a reimplanted ureter. We feel that it is much more simple, and the results are just as

good, to treat the ectopic ureter, transurethrally, rather than transvesically. In other words, it is not necessary to open the bladder.

SUMMARY

Five cases of ectopic urethral orifice, emptying into the urethra, have been presented. Transurethral treatment of these cases has been described, along with the results obtained to date. Other methods of treatment have been outlined.

CONCLUSION

Ectopic ureteral orifice in the urethra can be managed by transurethral means. The method is simple and efficacious.

DISCUSSION

Dr. W. E. Kittredge (New Orleans): Dr. Mitchell is to be congratulated for his alertness in the discovery of the 5 ectopic ureteral opening described in his presentation, inasmuch as all 5 patients had sphincteric control and no urinary incontinence, which is the one symptom which usually prompts one to search for an ectopic ureteral opening. His experiences well illustrate the necessity for always considering the possibility of an ectopic ureter in any case of unexplained persistent urinary symptoms, with or without evidence of infection.

Ectopic ureteral orifices occur oftener than is generally recognized and a great many are never recognized during life. An incidence as high as one in 1600 is reported by Campbell from autopsy material. The etiology, of course, is faulty embryologic development of the position of the ureteral orifice. The ureteral anlage, which normally originates at the bend of the wolffian or mesenephric duct, may bud higher up. Consequently, the further from the cloaca the anlage is formed, the lower the ureteral orifice will ultimately be shifted when this portion of the wolffian duct later becomes part of the lower urinary tract. In males, the ectopic opening is usually under sphincteric control resulting in symptoms of urethral irritation or urinary infection but not urinary incontinence. In females, who constitute more than half the total number of cases, the majority of the openings are beyond sphincteric control and result in urinary incontinence. The ectopy may involve one or both of completely reduplicated ureters unilaterally or bilaterally, or may involve one or both of single ureters from normal kidneys. In males the opening may be in the posterior urethra, vas deferens, epididymis or seminal vesicle. In females, the opening will be found most often just adjacent to the external urethral meatus or in the first portion of the urethra. More rarely the orifice may be in the vagina, cervix or even the uterus. In these cases the predominant symptom is urinary incontinence associated, however, with normal bladder function. In all cases of incontinence in young females careful study should be made for an ectopic orifice. This should include roentgenographic studies of the upper urinary tract which may demonstrate reduplication on one or both sides, coupled with careful inspection of the urethra and genitals. Indigo carmine, injected intravenously, is often an invaluable aid in locating the orifice as the indigo colored urine is excreted. This will fail to occur, however, in those in whom the involved kidney or portion of the kidney has lost its function, preventing normal excretion of the dye.

Surgical correction depends upon the status of the kidney or portion of the kidney involved. If renal function has been lost, heminephrectomy or nephrectomy as the case may be, with or without complete removal of the involved ureter, is the treatment of choice. In the presence of reasonably good renal function reimplantation of the ureter into the bladder or into the normal ureter may be considered. If there is no infection, simple ligation of the involved ureter brings about permanent loss of function in the involved portion of the kidney but obviates the necessity for nephrectomy. As Dr. Mitchell's cases well show, it is often sufficient to retstablish normal drainage, if possible, for those ectopic openings occurring within sphincteric control.

We have encountered two cases of ectopic ureter in recent years. The first was an 8 year old girl whose chief complaint was urinary incontinence. She also voided normally but was continually wet. The urine was not infected. Intravenous urograms revealed reduplication of the right kidney, the lower half being normal and the upper half showing reduced function and dilatation. With the aid of indigo carmine an ectopic orifice was located just below the normal external ureteral meatus. It was impossible to catheterize this ureter. Because of loss of function already present in the upper pole of this kidney, a heminephrectomy was done. She has had no further trouble.

The second case was a white woman, aged 28 years, who also had complained of incontinence since birth associated with normal urination. The urine was not infected and the ectopic orifice was identified just adjacent to the normal external ureteral meatus. This ureter was catheterized for a distance of 4 inches where obstruction was met. Intravenous and retrograde urograms of the upper urinary tract including injection of dye up the ectopic ureter demonstrated that this ureter drained the upper pole of the left kidney, which was not functioning. Following heminephrectomy she has had no further difficulty.

TREATMENT OF CARCINOMA OF THE BLADDER*

JOHN G. MENVILLE†
NEW ORLEANS

Carcinoma of the bladder is a complex disease so entangled with unknown factors and so resistant to cure that no mode of treatment has been universally accepted. Until agents are discovered which produce bladder tumors from urothelium, treatment will be based on a practical basis and not a truly scientific one.[1]

The current problems seem to be the recognition between mildly and deeply infiltrating tumors and their treatment. It is debatable whether nonradical treatment is sufficient in the former and radical surgery justified in the latter. The literature does not solve these problems but it does show the lack of a common classification and the scarcity of cases presenting pertinent data on grade, infiltration, size, location, multiplicity, type of treatment, and adequate follow-up.

DIAGNOSIS

There are no classical symptoms of carcinoma of the bladder, but hematuria, gross or microscopic, is of such importance that all such cases should be given a urological examination. An intravenous urogram which includes the bladder may show filling defects, distensibility of the bladder, and evidence of encroachment on the ureters. Cystoscopy locates the tumor, its size, appearance, multiplicity, and enables a biopsy to be taken. Multiple biopsies, including the base of the tumor, should be taken with a biting or cutting instrument. An activated loop distorts the tissue cells but it is sometimes the easiest method of reaching tumors adjacent to the bladder neck.

The fallibility of biopsy was most recently shown by Dean;[2] in 100 cases he found the grade of malignancy in the operative specimen to be higher than that of the biopsy specimen in one half of them.

The finding of carcinoma cells in the urine may help in the diagnosis; Chute and Williams[3] reported three cases in which malignancy of the bladder was first diagnosed by urine smear when the malignancy was only partly suspected.

Bimanual palpation of the bladder under anesthesia is believed by Jewett[4] to be of prognostic value, although he admits that accuracy is impossible when the tumor is behind the pubis or in front of the cervix uteri. In deeply infiltrating tumors of the bladder he found a rubbery or stony, hard mass palpable. In doubtful cases, surgical exploration, as stressed by Thomas,[5] may be a diagnostic aid.

PATHOLOGY

The type and behavior of a tumor is closely related to prognosis. Broders,[6] in 1922, graded tumors according to cell differentiation. Although important, this was not sufficient in predicting the progress of carcinoma. The importance of infiltration in bladder carcinoma has been recognized for many years. In 1931, Aschner[7] classified tumors of the bladder into infiltrating and noninfiltrating, papillary and nonpapillary. He concluded that the presence or absence of infiltration was a reliable guide to the gravity of carcinoma of the bladder. In 1944, Jewett[8] used infiltration as the basis for his three classes; namely, A when the tumor is confined to the submucosa, B when the tumor extends to the musculature but not through it, and C when the tumor invades the entire muscle. Using this classification in 107 autopsy cases Jewett[9] found no metastasis in 3 cases of group A. In 15 cases of group B, there was only 1 case of metastasis and 1 of perivesical lymphatic involvement. In 89 cases of group C, 52 showed metastasis, 6 perivesical lymphatic involvement, and 8 perivesical fixation.

In 1948, Mc Donald and Thompson[10] stressed vascular invasions as well as invasiveness of carcinoma of the bladder. In 243 cases of surgically removed specimens they found that 12.8 per cent fell into Jewett's group A, 53.9 per cent into group B, and 33.3 per cent into group C. Of the cases showing venous and perineural vascular in-

---

*Presented at the Seventy-second Annual Meeting of the Louisiana State Medical Society, Shreveport, April 30, 1952.

†From the Department of Surgery, Division of Urology, Tulane University School of Medicine, New Orleans, La.

volvement almost all were found in group C. The five year survival rate without vascular involvement was 37.8 per cent, and 11.6 per cent with vascular involvement. Further study revealed that transitional cell carcinoma offered a better prognosis than squamous cell carcinoma or adenocarcinoma.

It is well known that the most common spread from carcinoma of the bladder is to the regional lymphatics. Yet metastasis occurs without involvement of the regional lymphatics. Leadbetter and Cooper[11] found that perivesical extension and lymph node involvement occurs in 20 to 30 per cent of deeply infiltrating tumors of the bladder. Infiltrative tumors of the bladder were found by Jewett and Strong[9] to metastasize in approximately 50 per cent, but in about 36 per cent of these cases the regional lymph nodes were not involved.

TREATMENT

Transurethral Fulguration: This method is most commonly used for all tumors limited to the submucosa or those showing only slight muscle invasion. Dean[12] limits this method to single or multiple papilloma with a base no larger than 1 cm. and no more than 15 in number. The most popular and, I believe, effective method is transurethral resection of the tumor and fulguration of its base. This permits a more complete destruction and offers material for microscopic study. Flocks[13] feels that tumors located at the anterior bladder neck and fundus of the bladder, or tumors deeply infiltrating the prostate are not suitable for endoscopic treatment. Thompson,[14] however, does not admit such limitation. It would seem that a resectoscope should be used if the tumor is accessible.

Transurethral Implantation of Radon Seeds, with or without Electrocoagulation: Although not so popular as resection and fulguration, radon seeds, when used, are almost always employed in conjunction with these procedures. Dean[12] emphasizes that the resection is for the purpose of removing the bulk of the tumor and for outlining its base. He employs 1.5 millicurie seeds, 1 cm. apart, and to a depth of 0.5 cm. He restricts the method to single papilloma or papillary carcinoma, providing the base diameter is not larger than 2.5 cm. and not infiltrating. The tumor must be 1.5 cm. from a ureteral orifice and visible through a cystoscope. Thompson[14] uses radon seeds in tumors with clean-cut edges and deep x-ray when the edges are poorly defined.

Suprapubic Resection and Fulguration with and without Radon Seed Implantation: This procedure is usually reserved for single tumors too large to resect or located in an area which makes segmental resection difficult. It is also used as a palliative procedure when the tumor has extended beyond the bladder. In papillary carcinomas Crabtree[15] obtained good results by elevating the base between the jaws of a curved clamp, excising it, and fulgurating the base. When suprapubic resection is employed, Dean uses radon seeds but limits their use to a tumor with a base as large as 3 cm. and located 1.5 cm. from a ureteral orifice. He does not employ such treatment when the prostate is invaded or when the tumor extends beyond the bladder wall.

Segmental Resection of the Bladder Wall: This procedure is best suited for tumors limited to the bladder where 1.5 cm. of the normal bladder can be included. The trigone is particularly unsuited for this operation. Although Jewett and Cason[16] feel that the bladder neck and part of the prostate could be removed segmentally, this operation is open to question. Open surgery involving manipulation and opening of the bladder increases the chances of tumor spillage and spread by the lymph and blood streams.

Cystectomy, Including the Prostate, Seminal Vesicles, Uterus, Tubes and Cervix; with Diversion of the Urine to the Sigmoid or to the Skin; Regional Lymph Node Dissection: The indications for radical surgery are not clear-cut, and certainly not universally accepted. In general this procedure, when performed, is done on patients able to tolerate such surgery and those in which there is a reasonable hope of removing carcinoma which could not be controlled by a less radical procedure. It is generally agreed that multiple papilloma or multiple carcinoma limited to the bladder, and repeatedly

recurring low grade lesions offer the best chance of cure by cystectomy. Infiltrating tumors of the trigone, bladder neck, and those adjacent to a ureteral orifice are other indications used as guides to cystectomy. Dean feels that cystectomy is occasionally justified as a palliative measure. Ferris and Priestley,[17] on the other hand, feel that it is rarely, if ever, justified.

The mortality rate of 13 per cent in a large series of cystectomies with transplantation of the ureters, as reported by Ferris and Priestley, does not represent the results of the majority of reported series. This figure in 111 such cases was reduced to 8 per cent in the latter five years of their series.

Transplanting ureters into the bowel is the most popular means of diverting the urinary stream. When the ureters are dilated, and sometimes when they are normal, transplantation to the skin is preferred by some. This latter group feel that it is the safest procedure and that modern devices make it possible to handle the urine with comfort. It can also be said that recurrences can be handled better with the ureter transplanted to the skin.

The high incidence of death from recurrence or metastasis following cystectomy prompted Leadbetter,[11] Kerr,[18] Higgins,[19] and others to advocate regional lymph node dissection. Extensive dissection has been employed by Leadbetter in 15 patients, with 1 postoperative death. This type of surgery is being employed by a number of urologists but the results are too recent to properly evaluate them. Removal of the entire pelvic contents is also being employed, but again, time alone will prove or disprove its merits.

Irradiation: Dean[12] estimates that no more than three-quarters of a curative dose of radiation can be delivered to a bladder tumor by any roentgen unit. Lewis[20] uses radium placed at the center of a Foley balloon catheter in treating multiple noninfiltrating tumors refused by surgery. Deep x-ray has been advocated by Thompson[14] in conjunction with endoscopic treatment of tumors with poorly defined edges.

By and large, deep x-ray is used as a palliative procedure in inoperable cases and sometimes in conjunction with less radical procedures. The use of small doses preoperatively to lessen the dangers of spread caused by manipulation of the bladder in open surgery has been suggested by Flocks.[13]

Palliative Ureterointestinal Anastomosis: The palliative effects of diversion of the urinary stream, whether to the bowel or skin, in inoperable carcinoma of the bladder, with intractible spasms and recurring hemorrhage, have been widely acknowledged. This diversion makes possible the delivery of heavy doses of deep x-ray and it is sometimes used when extensive resection and fulguration involving the ureteral orifice or bladder neck is anticipated.

The urine borne carcinogens may be an influencing factor in diverting the urine. Their presence is suggested by the multiplicity of and the recurrence of bladder tumors in different areas of the bladder as well as by the high incidence of tumors in the bladder of analine dye workers. Although rare, it has been shown by Pearce, Trabucco, Davis, Goldberg and Fort[21-25] that carcinoma regresses following transplantation of the ureters into the sigmoid.

Perhaps the latest approach in the treatment of bladder carcinoma is the use of radioactive isotopes. This mode of therapy, together with radical surgery, is still in the investigative stage.

RESULTS

In spite of the dismal outlook of high grade and infiltrating carcinoma, one is occasionally amazed at the atypical behavior of such tumors.

In a personal case, Mrs. J. E., a grade III squamous cell carcinoma, involving the base and lateral walls adjacent to the bladder neck, was treated by suprapubic fulguration and radium needles (55 mg. for twenty-four hrs.). The patient died seven years later from a cardiac death, apparently free from recurrence. The interesting fact, however, was the cystoscopic fulguration of a cauliflower growth in her bladder twenty-seven years previous to her death.

Evaluation of results of treatment is dif-

ficult. There is no common classification and in many of the cases treated more than one method was employed.

Royce and Ackerman[26] found that the size of the tumor influenced the prognosis. When the tumor was less than 2 cm. the survival rate was four years and two months. Tumors between 2 and 4.9 cms. survived three years and four months, while tumors 5 cm. and over survived one year and six months.

Using endoscopic fulguration the authors obtained a survival average of five years, four months for tumors which were largely grade I. In 100 cases of tumors grade II or more, Waller and Hamer[27] obtained a tumor-free five year survival in 34 per cent. Flocks,[13] employing transurethral resection, in 167 cases of noninfiltrating tumors controlled 77 per cent for five years and in early infiltrating tumors he obtained good results in 50 per cent of the cases.

Barnes[28] reported better results with the use of radon seeds than with resection alone. Using radon seeds on 25 cases, Royce obtained an average survival of three years, one month. The same author in 21 cases treated by open excision and fulguration noted an average survival of two years, six months.

In open excision of 62 cases of papillary carcinoma, Crabtree[15] found that 30.6 per cent survived over ten years and another 20 per cent survived five years, but died of tumor.

In partial or complete cystectomy, McDonald and Thompson[10] found the percentage of five year survivals to be, according to Jewett's classification: 38.3 in group A, 29.6 in group B and 5.2 in group C. Jewett[29] reported 11 of 12 cases of group B surviving five years without recurrence but only 1 in 45 cases of group C survived five years.

In a cystectomy series comprised largely of group B and C tumors, Ferris and Priestley[17] obtained a 19 per cent five year survival, exclusive of hospital mortality cases.

In 1949, I had the opportunity of performing complete cystectomy on 4 cases of carcinoma of the bladder. To date, 2 are alive and show no evidence of recurrence or extension, namely:

L. B., a 63-year-old male with an early group B, grade III, transitional cell carcinoma involving the bladder neck, base and lateral walls.

J. E., a 62-year-old male with an early group B, transitional cell carcinoma involving the bladder neck, base, lateral and posterior walls and left ureteral orifice.

The following 2 cases died:

J. B., a 46-year-old male with a group C, grade III, transitional cell carcinoma involving the base, bladder neck, posterior urethra, and lateral walls. The regional lymph nodes were involved and the patient died four months later from carcinoma.

C. F., a 47-year-old male with a group B, grade III, transitional cell carcinoma with practically the entire bladder involved. One kidney showed no function and the other was hydronephrotic. The patient died elsewhere about twelve months later, presumably from carcinoma.

Perhaps the most significant comparison of the treatment of bladder tumors by cystectomy and methods other than cystectomy is offered by Kerr and Colby.[30] In their two series treated by different methods there were no appreciable differences in the size or grade of malignancy. In the infiltrating tumors the five year survival rate with cystectomy was 8 per cent as compared to 11 with procedures other than cystectomy. In the noninfiltrating tumors, 16 per cent survived cystectomy while all the cases treated by noncystectomy methods survived. The same authors reported 15 cases treated by lymphadenectomy and cystectomy, and of this group 6 showed involvment of the regional lymphatics. Exploration of 4 of these five months later showed recurrence of the tumor in 3. Leadbetter and Cooper have reported a more radical type of lymphadenectomy in 15 cases; 1 died a cardiac death and 3 died of recurrence three months after surgery. One of the living cases showed vertebral metastasis thirty months after surgery.

COMMENTS

The treatment of noninfiltrating and, to an extent, mildly infiltrating tumors of the bladder is fairly well established and the results satisfactory. Deeply infiltrating tumors, however, have not responded well to any form of therapy and the chances of cure are very poor indeed. Radical meas-

ures, including pelvic evisceration, are being tried to overcome the poor prognosis in these latter cases. From the recorded cases in the literataure the lateral sacral lymph nodes were not removed and pelvic evisceration was not performed. However, radical treatment short of these measures was carried out and the results obtained did not seem to justify such procedures. Granting that all the lymph bearing tissue in the pelvis is removed, one cannot ignore the fact that carcinoma spreads by the blood stream without involvement of the regional lymphatics.

Although Jewett has given a lead in predicting the spread of carcinoma beyond the bladder one still cannot measure accurately the depth a tumor can infiltrate before the cells escape from the bladder through the lymph or blood streams. Until a more accurate measure of recognition is at hand, the choice of therapy in cases of borderline infiltration will continue to be problematic.

Radical surgery is still in the trial stage and its possibilities should be fully explored before it is condemned or accepted. Pelvic evisceration must necessarily show an optimistic cure rate to justify the disability, mortality, morbidity, and deranged function associated with such surgery.

CONCLUSIONS

1. Infiltrating carcinoma of the bladder as it extends from a superficial to a deeper type is difficult to recognize.

2. The treatment of deeply infiltrating carcinoma of the bladder is unsatisfactory.

3. Radical surgery for infiltrating carcinoma of the bladder is still in the investigative stage.

REFERENCES

1. Aschner, P. W.: Discussion. J. Urol. 65:849, 1951.

2. Dean, A. L.: Comparison of the malignancy of bladder tumors as shown by cystoscopic biopsy and subsequent examination of the entire excised organ, J. Urol. 59:193, 1948.

3. Chute, R. and Williams, D. W.: Experiences with stained smears of cells in the urine, J. Urol. 59:604, 1948.

4. Jewett, H. J. and Lewis, E. L.: Infiltrating carcinoma of the bladder; curability by total cystectomy, J. Urol. 60:107, 1948.

5. Thomas, G. J., Malcolm, D. C., and Bischoff, A. J.: Cystectomy and urinary diversion in carcinoma of bladder, J. Urol. 65:353, 1951.

6. Broders, A. C.: Epithelioma of the genito-urinary organs, Ann. Surg., 75:574, 1922.

7. Aschner, P. W.: Clinical applications of bladder tumor pathology, Surg., Gynec. and Obst., 52:979, 1931.

8. Jewett, H. J.: Infiltrating carcinoma of bladder. Relation of potential curability to depth of infiltration, Trans. Am. A. Genito-Urin. Surgeons 37: 51, 1944.

9. Jewett, H. J. and Strong, G. H.: Infiltrating carcinoma of bladder, J. Urol. 55:366, 1946.

10. McDonald, J. R. and Thompson, G. J.: Carcinoma of the urinary bladder. A pathologic study with special reference to invasiveness and vascular invasion, J. Urol. 60:435, 1948.

11. Leadbetter, W. F., and Cooper, J. F.: One-stage cystectomy, gland dissection, and bilateral uretero-enterostomy, J. Urol. 63:242, 1950.

12. Dean, A. L.: The treatment of bladder tumors, J. Urol. 60:92, 1948.

13. Flocks, R. H.: Treatment of patients with carcinoma of the bladder, J.A.M.A. 145:295, 1951.

14. Thompson, G. J.: Discussion, J.A.M.A. 145:295, 1951.

15. Crabtree, E. G.: Remote end results of management of pedunculated bladder tumors, J. Urol. 60:85, 1948.

16. Jewett, H. J., and Cason, J. F.: Infiltrating carcinoma of the bladder; curability by segmental resection, South. M. J. 41:158, 1948.

17. Ferris, D. E., and Priestley, J. T.: Total cystectomy in the treatment of vesical carcinoma, J. Urol. 60:98, 1948.

18. Kerr, W. S. Jr., and Colby, F. H.: Pelvic lymphadenectomy and total cystectomy in cancer of bladder, J. Urol. 63:842, 1950.

19. Higgins, C. C.: Cystectomy for bladder carcinoma, J. Urol. 64:318, 1950.

20. Lewis, L. G.: Discussion. J. Urol. 65:845, 1951.

21. Pearse, R.: Discussion, J. Urol. 49:32, 1943.

22. Trabucco, A.: Discussion. J.A.M.A., 137:453, 1948.

23. Davis, E.: Disappearance of carcinomatous ulceration of bladder following uretero-sigmoidostomy, J.A.M.A., 137:450, 1948.

24. Goldberg, L. G.: Complete regression of carcinoma of the bladder following ureterosigmoidostomy, J. Urol. 63:116, 1950.

25. Fort, C. A., Harlin, H. C., and Atkinson, H. D.: Regression of bladder cancer following uretero-intestinal anastomosis, J. Urol 66:688, 1951.

26. Royce, R. K., and Ackerman, L. V.: Carcinoma of bladder, J. Urol. 65:66, 1951.

27. Waller, J. L., and Hamer, H. G.: Bladder tumors, J. Urol. 64:651, 1950.

28. Barnes, Roger W.: Discussion. J.A.M.A. 145:295, 1951.

29. Jewett, H. J.: Discussion. J. Urol. 65:846, 1951.

30. Kerr, W. S. Jr., and Colby, F. H.: Carcinoma of the bladder, J. Urol. 65:841, 1951.

NEW ORLEANS
Medical and Surgical Journal

Established 1844

Published by the Louisiana State Medical Society under the jurisdiction of the following named Journal Committee:

W. E. Barker, Jr., M. D., Ex-Officio
E. L. Leckert, M. D., Chairman
C. M. Horton, M. D., Vice-Chairman
Sam Hobson, M. D., Secretary
Edwin H. Lawson, M. D.
J. E. Knighton, M. D.

EDITORIAL STAFF

Philip H. Jones, M. D.....*Editor*

COLLABORATORS—COUNCILORS
H. Ashton Thomas, M. D.
Joseph S. Kopfler, M. D.
Guy R. Jones, M. D.
Paul D. Abramson, M. D.
C. Prentice Gray, Jr., M. D.
Arthur D. Long, M. D.
J. W. Faulk, M. D.
H. H. Hardy, M. D.

C. Grenes Cole, M. D.....*General Manager*
1430 Tulane Avenue

SUBSCRIPTION TERMS: $4.00 per year in advance, postage paid, for the United States; $4.50 per year for all foreign countries belonging to the Postal Union.

News material for publication should be received not later than the eighteenth of the month preceding publication. Orders for reprints must be sent in duplicate when returning galley proof.

Manuscripts should be addressed to the Editor, 1430 Tulane Ave., New Orleans, La.

THE JOURNAL *does not hold itself responsible for statements made by any contributor.*

LOUISIANA PHYSICIANS AND THE CHIROPRACTORS

The position taken by those practicing medicine as qualified physicians in Louisiana is that they do not want chiropractors licensed in any form in this State. The entire position in substance is based on admitted facts: (1) That chiropractors are improperly trained in the knowledge of medicine. (2) That they hold a view of causation of the disease processes, which is opposite to all scientific fact and to common sense.

At present, no chiropractor can legally practice in Louisiana unless he passes the State Board of Medical Examiners. Were he able to do this, it is obvious that he would then practice as a physician. There are three other states besides Louisiana which have a similar law. These are Massachusetts, Mississippi, and New York. The situation in other states is not so fortunate. Summarized, it is as follows:

32 States have independent chiropractic licensing Boards and of these 18 have a basic science requirement.

5 States, with the District of Columbia added, have a separate chiropractic Board under a special licensing bureau, and
3 of these have basic science requirements.

3 States have a special licensing Board with no chiropractor representation.

5 States have a licensing Board with a chiropractor on the Board.

As a group, the chiropractors are constantly endeavoring to expand the scope of their interests. In some of the so-called liberal states, an individual with six weeks to a year's training is actually encroaching on some phases of the practice of medicine. In our State, in consequence of the State licensing law, practice and the encroachment which would follow have been prevented since 1922 by the efforts of the Committee on Legislation and Public Policy, ably assisted by Dr. C. Grenes Cole, now Secretary of the State Society, and by Dr. Roy Harrison, Secretary of the State Board of Medical Examiners. The work of this committee has become increasingly difficult, and few physicians who are in the first half of their career of practice realize the value of the heritage which this agency of the State Society has bestowed on them through the years.

Proper representations have been made at hearings of committees in the Louisiana State legislature. Seldom has a vote been

taken on the floor of either chamber. Difficulties of presenting the facts and point of view of legitimate physicians have increased. The efforts of the chiropractors may begin with the campaign in which representatives and senators are elected to the legislature. A prospective and likely successful candidate may be approached, as he opens his campaign, to support the licensing of unqualified persons to practice medicine. However, illogical though the case of the chiropractor may be, it is astounding the amount of support they are able to show in legislature. The doctrine submitted by the proponents is that chiropractic is "the science of things natural." Some of the legislators appear to believe them.

It is understood that each legislator has been served notice by the advocates for the chiropractors that the efforts to promote the passage of another chiropractor licensing bill are starting now and will be presented to each successive meeting of the legislature, including the one of 1954. The spokesman for the chiropractors announced in the committee of the House of Representatives, "We will be back in two years."

In recent prosecutions in this State, sworn testimony by spokesmen for and practicers of chiropractic have stated that they do not believe in the production of disease by germs; that they would treat meningitis and bubonic plague with "adjustments;" diabetics would have the same type of treatment. In brief, that they believe differently from the basic concepts of medicine as represented in the various scientific subdivisions.

It is apparent then that we must present our case more forcibly to the public. We should be definite and persistent in expressing and giving our position on chiropractic doctrine and practice. Our patients should have a clear concept of our reasons for opposition. Forceful prosecutions of violations of the Medical Practice Act are dependent upon information from physicians, and from patients who have sought chiropractic treatment. The position of the Courts is such that paid informers cannot be used. Prosecutions by the State Board of Medical Examiners are possible only when voluntary witnesses give unequivocal evidence. The Medical Practice Act under which we are governed in Louisiana has stood the test of many Court decisions, including those of the Supreme Court. It has been used by many other States. If it is to be maintained intact so that its benefits may accrue to the successive generations of physicians that follow us, a more aggressive attitude against this threatened invasion is imperative on the part of the individual physician.

In the generations just past, the physician was a person of importance in his community. In recent years, organized medicine has contributed greatly to his regaining some of the influence lost. This influence should be exerted, among other aims, in the direction of educating the public against the chiropractors.

—o—

ORGANIZATION SECTION

The Executive Committee dedicates this section to the members of the Louisiana State Medical Society, feeling that a proper discussion of salient issues will contribute to the understanding and fortification of our Society.

An informed profession should be a wise one.

WAKE UP DOCTORS!!

The facts gleaned from reading the following report which, in our opinion, represents a cross section of our state, should open the eyes of our fellow doctors as well as lay voters. This reveals, we feel, just why Mr. Truman was elected President in 1948.

We, as physicians, should wake up and take a more active part in our state and na-

tional elections and use our influence with our patients to register and to exercise their prerogative of voting for candidates who will look after the best interest of our people. Doctors should wield a greater influence and take a greater part in our elections. We are overlooking a good bet to not only look after the people of our state and country but also to show some concern for our own interests.

Our plea to you is to register and vote in all elections. Only in this way can we secure the best officials and protect our people and ourselves in these trying times.

Physicians cannot win their fight by staying away from the polls on election day, Charles S. Nelson, executive secretary of the Ohio Medical Association, said at the Second National Conference on the A.M.A. Education Campaign in Chicago.

Mr. Nelson provided some startling facts which show the medical profession's inertia at election time.

"Let me give you some almost unbelievable data which has been uncovered in Ohio," Mr. Nelson said, adding:

"After the surprise party which Mr. Truman threw in November, 1948, some of the political leaders in Ohio decided to hold a postmortem. They selected one of Ohio's industrial areas—Summit County, including the city of Akron. The records of the county boards of elections were scrutinized. Believe them or not, here are some of the findings:

"18% of the physicians of the county did not vote in the 1948 election—13% of them were not even registered and therefore not eligible to vote.

"22% of the wives of physicians did not vote—16% of them were not registered.

"10% of the members of the Rotary Club did not vote—3% were not registered.

"The tally on Kiwanis Club members was about the same.

"18% of the druggists did not vote—15% were not registered.

"11% of the teachers did not vote—6% were not registered.

"32% of the bank employees, including executives, did not vote—26% were not registered.

"33% of the ministers did not vote—26% were not registered.

"34% of the retail grocers did not vote—29% were not registered.

"Here's one for the books: 21% of the members of the Chamber of Commerce did not vote—15% were not registered."

———o———

LOUISIANA STATE MEDICAL SOCIETY STANDING COMMITTEES

1952 - 1953

Arrangements for 1953 Meeting:

Cuthbert J. Brown, M. D., Chairman, New Orleans.

Budget and Finance:

E. L. Leckert, M. D., Chairman, 2 years; Emmett L. Irwin, M. D., 3 years, both of New Orleans; Arthur D. Long, M. D., Baton Rouge, 1 year.

Congressional Matters:

P. H. Jones, M. D., Chairman; C. J. Brown, M. D., Vice-Chairman, both of New Orleans; Roy J. St. Martin, M. D., Houma; J. E. Knighton, M. D., Shreveport; R. E. King, M. D., Winnsboro; Arthur D. Long, M. D., Baton Rouge; Thomas H. DeLaureal, M. D., Lake Charles; R. E. C. Miller, M. D., Alexandria.

Journal:

E. L. Leckert, M. D., Chairman, New Orleans, 1 year; C. M. Horton, M. D., Vice-Chairman, Franklin, 2 years; Sam Hobson, M. D., Secretary, New Orleans, 3 years; Edwin H. Lawson, M. D., New Orleans, 1 year; J. E. Knighton, M. D., Shreveport, 3 years.

Maternal Welfare:

Earl C. Smith, M. D., Chairman; Simon V. Ward, M. D., Vice-Chairman, both of New Orleans; T. Benton Ayo, M. D., Raceland; Clifford R. Mays, M. D., Shreveport; J. E. Walsworth, M. D., Monroe; Rhett G. McMahon, M. D., Baton Rouge; R. G. Masterson, M. D., Alexandria; R. W. Worden, M. D., Lake Charles.

Medical Defense:

C. B. Erickson, M. D., Chairman, Shreveport, 2 years; W. A. Ellender, M. D., Houma, 1 year; J. Kelly Stone, M. D., New Orleans, 3 years.

Medical Education:

P. H. Jones, M. D., Chairman, 2 years; Roy B. Harrison, M. D., Vice-Chairman, 2 years; Edgar Hull, M. D., 1 year, all of New Orleans.

Medical Testimony:

Edmund Connely, M. D., Chairman, 3 years; T.

A. Watters, M. D., 1 year; A. N. Sam Houston, M. D., 2 years, all of New Orleans; I. W. Gajan, M. D., New Iberia, 2 years; J. W. Cummins, M. D., Monroe, 1 year.

Public Policy and Legislation:

Cuthbert J. Brown, M. D., Chairman, New Orleans; J. E. Clayton, M. D., Norco; Julius M. Fernandez, M. D., Franklin; A. A. Herold, M. D., Shreveport; D. T. Milam, M. D., Monroe; Henry W. Jolly, Jr., M. D., Baton Rouge; E. C. Faulk, M. D., Rayne; M. B. Pearce, M. D., Alexandria; E. A. Campbell, M. D., Homer; William McG. McBride, M. D., Alexandria; Felix A. Planche, M. D., New Orleans; C. S. Sentell, M. D., Shreveport; W. E. Barker, Jr., M. D. (President LSMS), Plaquemine; C. Grenes Cole, M. D. (Secretary-Treasurer LSMS), New Orleans.

Scientific Work:

C. Grenes Cole, M. D., Chairman; W. H. Gillentine, M. D., both of New Orleans; M. D. Hargrove, M. D., Shreveport.

SPECIAL COMMITTEES

Advisory to Selective Service:

J. Kelly Stone, M. D., Chairman; H. Ashton Thomas, M. D., both of New Orleans; Guy R. Jones, M. D., Lockport; M. D. Hargrove, M. D., Shreveport; H. H. Cutler, M. D., Monroe; Rhett McMahon, M. D., Baton Rouge; G. E. Barham, M. D., Lake Charles; M. B. Pearce, M. D., Alexandria.

Aid to Indigent Members:

Max M. Green, M. D., Chairman; E. L. Drewes, M. D., Vice-Chairman, both of New Orleans; G. E. Barham, M. D., Lake Charles; F. H. Davis, M. D., Lafayette; J. V. Hendrick, M. D., Shreveport; J. J. Massony, M. D., Westwego; U. S. Hargrove, M. D., Baton Rouge.

Blood Banks:

P. H. Jones, M. D., Chairman; J. W. Davenport, M. D., both of New Orleans; J. Q. Graves, M. D., Monroe.

Cancer:

Ambrose H. Storck, M. D., Chairman; H. Ashton Thomas, M. D., Vice-Chairman, both of New Orleans; Howard R. Mahorner, M. D., New Orleans; W. A. Ellender, M. D., Houma; W. R. Matthews, M. D., Shreveport; A. S. Hamilton, M. D., Monroe; Charles McVea, M. D., Baton Rouge; W. E. Hunt, M. D., Lake Charles; B. H. Texada, M. D., Alexandria.

Child Health:

Frank W. Pickell, M. D., Chairman, Baton Rouge; Clarence H. Webb, M. D., Vice-Chairman, Shreveport; Sims Chapman, M. D.; A. V. Friedrichs, M. D., both of New Orleans; J. W. Faulk, Jr., M. D., Crowley; F. Michael Smith, Jr., M. D., Thibodaux; F. E. McCarty, M. D., Monroe; H. H. Hardy, M. D., Alexandria.

Chronic Diseases:

J. K. Howles, M. D., Chairman, New Orleans; J. S. Kopfler, M. D., Vice-Chairman, Kenner; E. A. Bertucci, M. D.; F. L. Jaubert, M. D., both of New Orleans; Percy H. LeBlanc, M. D., Donaldsonville; P. R. Gilmer, M. D., Shreveport.

Committees:

E. L. Leckert, M. D., Chairman; Roy B. Harrison, M. D., both of New Orleans; Joseph P. Tomsula, M. D., Baton Rouge.

Diabetes:

Joseph W. Wells, M. D., Chairman, New Orleans; A. A. Herold, M. D., Shreveport; Frank W. Pickell, M. D., Baton Rouge.

Domicile:

Boni J. DeLaureal, M. D., Chairman; E. L. Leckert, M. D., both of New Orleans; M. B. Pearce, M. D., Alexandria; George W. Wright, M. D., Monroe.

Grievances:

H. Ashton Thomas, M. D., Chairman; F. F. Boyce, M. D., Vice-Chairman, both of New Orleans; Percy A. Phillips, M. D., New Orleans; H. W. Boggs, M. D., Shreveport; W. K. Irwin, M. D., Baton Rouge.

History of LSMS:

Rudolph Matas, M. D., Chairman; D. N. Silverman, M. D.; Isidore Cohn, M. D., all of New Orleans.

Hospitals:

N. J. Tessitore, M. D., Chairman; W. H. Roeling, M. D., both of New Orleans; S. E. Ellender, M. D., Houma; Frank H. Davis, M. D., Lafayette; Julius M. Fernandez, M. D., Franklin; M. C. Wiginton, M. D., Hammond; T. Jeff McHugh, M. D., Baton Rouge.

Industrial Health:

J. Morgan Lyons, M. D., Chairman, New Orleans; A. N. Sam Houston, M. D., New Orleans; Carroll Gelbke, M. D., Gretna; J. E. Knighton, M. D., Shreveport; R. G. Holcombe, Jr., M. D., Lake Charles; Guy Riche, Jr., M. D., Baton Rouge.

Lectures for Colored Physicians:

Daniel J. Murphy, M. D., Chairman; Conrad G. Collins, M. D.; W. Robyn Hardy, M. D.; J. D. Rives, M. D., all of New Orleans; Paul D. Abramson, M. D., Shreveport.

Liaison with Louisiana State Nurses' Assn.:

Val H. Fuchs, M. D., Chairman; Edgar Burns, M. D.; E. L. Leckert, M. D.; Edmond Souchon, M. D., all of New Orleans; Rhett McMahon, M. D., Baton Rouge; George W. Wright, M. D., Monroe.

Louisiana Physicians Service, Inc. Controversial Claims:

Boni J. DeLaureal, M. D.; Joel B. Gray, M. D.; Max M. Green, M. D.; John J. Irwin, M. D.; Joseph P. Palermo, M. D.; Edwin L. Zander, M. D., all of New Orleans; C. S. Sentell, M. D., Shreveport; George W. Wright, M. D., Monroe.

Medical Indigency:

Jules Myron Davidson, M. D., Chairman; T. B. Sellers, M. D., both of New Orleans; C. R. Brownell, M. D., Morgan City; Douglas L. Kerlin, M. D., Shreveport; H. Guy Riche, Jr., M. D., Baton Rouge.

National Emergency Medical Service (Civil Defense):

Chares B. Odom, M. D., Chairman; Val H. Fuchs, M. D. (District B), both of New Orleans; Rhett McMahon (District A), Baton Rouge; Willard A. Ellender, M. D. (District C), Houma; Jared Y. Garber, M. D. (District D), Lake Charles; C. P. Herrington, M. D. (District E), Alexandria; Henson S. Coon, M. D. (District F), Monroe; W. J. Norfleet, M. D. (District G), Shreveport; E. H. Byrd, M. D. (District H), Leesville; E. P. Breaux, M. D. (District I), Lafayette; F. C. Shute, M. D. (District J), Opelousas.

Neuropsychiatric Service at Charity Hospitals:

Edmund Connely, M. D., Chairman; C. S. Holbrook, M. D., H. R. Unsworth, M. D.; all of New Orleans; Arthur D. Long, M. D., Baton Rouge; E. M. Robards, M. D., Jackson.

Nominations: (Committees to be elected at 1953 Annual Meeting)

E. L. Leckert, M. D., Chairman; Roy B. Harrison, M. D.; both of New Orleans; C. M. Horton, M. D., Franklin.

Public Health of the State of Louisiana:

A. V. Friedrichs, M. D., Chairman; N. J. Chetta, M. D., Roy B. Harrison, M. D.; all of New Orleans; Carlos Alessi, M. D., Hammond; C. J. Schexnaildre, Jr., M. D., Franklin; W. J. Sandidge, M. D., Shreveport; W. L. Bendel, M. D., Monroe; R. G. Holcombe, Jr., M. D., Lake Charles; Roy W. Wright, M. D., Pineville.

Rural and Urban Health:

J. P. Sanders, M. D., Chairman, Shreveport; George H. Hauser, M. D., J. J. Irwin, M. D.; both of New Orleans; Guy R. Jones, M. D., Lockport; James E. McConnell, M. D., Monroe; F. C. Shute, Jr., M. D., Opelousas; J. A. White, Jr., M. D., Alexandria; M. C. Wiginton, M. D., Hammond.

Second District Medical Society and Orleans Parish Medical Society (Investigation in re membership).

E. L. Leckert, M. D., Chairman, A. B. Cairns, M. D., A. V. Friedrichs, M. D., Roy B. Harrison, M. D., all of New Orleans; M. B. Casteix, M. D.; Joseph S. Kopfler, M. D., both of Kenner.

State Hospital Policies:

Philip H. Jones, M. D., Chairman, Edmund Connely, M. D., Charles B. Odom, M. D., Edwin L. Zander, M. D.; all of New Orleans; W. E. Barker, Jr., M. D. (Pres. LSMS), Plaquemine; C. S. Sentell, M. D., Shreveport; George W. Wright, M. D., Monroe.

Woman's Auxiliary (Advisory Committee):

Roy B. Harrison, M. D., Chairman, New Orleans; C. B. Erickson, M. D., M. D. Hargrove, M. D.; both of Shreveport.

COUNCIL ON MEDICAL SERVICE AND PUBLIC RELATIONS

W. Robyn Hardy, M. D., Chairman; C. F. Bellone, M. D., Vice-Chairman; Theodore F. Kirn, M. D., all of New Orleans; Leo J. Kerne, M. D., Thibodaux; T. B. Tooke, Jr., M. D., Shreveport; T. A. Dekle, M. D., Jonesboro; Daniel J. Fourrier, M. D., Baton Rouge; Max M. Miller, M. D., Lake Charles; O. B. Owens, M. D., Alexandria; P. H. Jones, M. D., New Orleans (Editor, NOMSJ), ex-officio member; C. Grenes Cole, M. D., New Orleans (Sec.-Treas. LSMS), ex-officio member; W. E. Barker, Jr., M. D., Plaquemine (Pres. LSMS), ex-officio member.

EXECUTIVE COMMITTEE

William E. Barker, Jr., M. D., Plaquemine—President.

Philip H. Jones, M. D., New Orleans—President-elect.

Ralph H. Riggs, M. D., Shreveport—First Vice-President.

Theo F. Kirn, M. D., New Orleans—Second Vice-President.

Daniel J. Fourrier, M. D., Baton Rouge—Third Vice-President.

Edwin L. Zander, M. D., New Orleans—Past President.

Andrew V. Friedrichs, M. D., New Orleans—Chairman, House of Delegates.

W. S. Kerlin, M. D., Shreveport—Vice-Chairman, House of Delegates.

C. Grenes Cole, M. D., New Orleans—Secretary-Treasurer.

H. Ashton Thomas, M. D., New Orleans—Councilor, First District (Chairman of Council).

Joseph S. Kopfler, M. D., Kenner—Councilor, Second District.

Guy R. Jones, M. D.—Councilor, Third District.

Paul D. Abramson, M. D., Shreveport—Councilor, Fourth District.

C. Prentice Gray, Jr., M. D., Monroe—Councilor, Fifth District.

Arthur D. Long, M. D., Baton Rouge—Councilor, Sixth District.

J. W. Faulk, M. D., Crowley—Councilor, Seventh District.

H. H. Hardy, M. D., Alexandria—Councilor, Eighth District.

LOUISIANA STATE MEDICAL SOCIETY NEWS

CALENDAR

PARISH AND DISTRICT MEDICAL SOCIETY MEETINGS

Society	Date	Place
East Baton Rouge	Second Wednesday of every month	Baton Rouge
Morehouse	Third Thursday of every month	Bastrop
Natchitoches	Second Tuesday of every month	
Orleans	Second Monday of every month	New Orleans
Ouachita	First Thursday of every month	Monroe
Rapides	First Monday of every month	Alexandria
Sabine	First Wednesday of every month	
Second District	Third Thursday of every month	
Shreveport	First Tuesday of every month	Shreveport
Vernon	First Thursday of every month	

NATIONAL ASSOCIATION OF CORONERS

The National Association of Coroners will meet at the Roosevelt Hotel, August 26, 27, 28, and 29, with the following speakers participating in the program.

Ben H. Brown, Coroner and Public Administrator, Los Angeles County, California.

Senator Robert A. Ainsworth, Jr.

Mayor deLesseps S. Morrison.

Hon. Fred S. LeBlanch, Attorney General of Louisiana.

Hon. Severn T. Darden, District Attorney, "The Relationship of the District Attorney's Office to the Coroner's Office."

Hon. J. Bernard Cocke, Judge, Criminal District Court, "The Coroner and His Administration of Criminal Justice."

Dr. Charles B. Odom, "Civil Defense".

Dr. Stanley H. Durlacher, "New Test for Determination of Drowning".

Dr. Milton Helpern, Deputy Chief Medical Examiner, NYC, "Sudden and Unexpected Natural Death".

Dr. S. R. Gerber, Coroner, Cuyahoga County, Cleveland, Ohio, "Infant Deaths and Vital Statistics".

Philip J. Schoen, III, Funeral Director, "The Relationship between the Coroner's Office and the Funeral Director."

Capt. William Dowie, Homicide Div., N.O.P.D., "The Relationship of the Homicide Division to the Coroner's Office".

Thomas E. McGuire, Agent in Charge, Federal Narcotics Bureau, "The Use of Narcotics as applied to Juveniles and How it is Combatted".

Dr. E. J. Ireland, Coroner's Toxicologist and Professor of Pharmacology, Loyola University, "A New Test for Morphine".

Dr. John Adriani, Director, Department of Anesthesia, Charity Hospital, "The Effectiveness of Truth Serum in Criminal Cases".

J. M. Lopez, Special Agent in Charge, F.B.I., New Orleans.

Capt. Chas. Kincade, B. of I., N.O.P.D., "The Relationship of the Bureau of Identification to the Coroner's Office."

Dr. Willis P. Butler, Coroner, Caddo Parish, Shreveport, Louisiana, "The New Coroner's Laws in Louisiana."

A. L. Brodie, Coroner, Cook County, Chicago, Ill., "The Modern Coroner".

Discussion of papers led by Capt. David E. Kerr, Consultant in Homicide Investigation for the National Association of Coroners, Chief of Homicide Investigation Unit, Cleveland Police Department, Cleveland, Ohio.

SCHENLEY LABS ANNOUNCES $17,000 RESEARCH GRANT

Schenley Laboratories, Inc., Lawrenceburg, Ind., has announced a grant of $17,000 to the Langbord Virus Laboratory at Hahnemann Medical College and Hospital, Philadelphia, Pa., for anti-virus research. The studies will be made by Dr. B. A. Briody, recently appointed director of the virus laboratory.

LA. CHAPTER, AMERICAN COLLEGE OF SURGEONS TO MEET IN OCTOBER

The Louisiana Chapter of the American College of Surgeons will present a one-day clinical program in New Orleans on Friday, October 24, 1952, at Charity Hospital. There are to be no formal papers but a full day of dry clinics and case presentations, along with summaries of surgical problems under investigation by the medical school faculties in New Orleans. The members of the Louisiana State Medical Society are invited to attend. There will be no registration fee.

The following subjects will be presented:

Bleeding Diverticulitis of the Colon—Dr. William C. Quinn.

Polypoid Disease of the Rectum and Colon—Dr. C. R. Walters.

Diverticulum of the Duodenum, With Perforation and Hemorrhage—Dr. Marshall L. Michel.

Surgical Aspects of Portal Hypertension—Dr. Paul De Camp.

Present Trends in Thyroid Surgery—Dr. Rawley M. Penick, Jr.

Carcinoma of the Stomach—Dr. Frederick F. Boyce.

Stenosis of the Biliary Tract—Dr. Ambrose H. Storck.

The Problem of the Bleeding Nipple—Dr. Robert Lynch.

Diagnosis and Management of Bleeding in the Third Trimester of Pregnancy—Dr. Isadore Dyer.

Lower Abdominal Emergencies of Gynecological Origin—Dr. Conrad G. Collins.

Penetrating Wounds of the Thorax—Dr. John Overstreet.

Conservative Amputation—Dr. L. Sidney Charbonnet, Jr.

Common Errors in Amputation Surgery—Dr. Jack K. Wickstrom.

Clinical Implications of Transplantation of Tumor Tissue to the Animal Cornea—Dr. Edward T. Krementz.

Foreign Body Obstructions and Perforations of the Gastrointestinal Tract—Dr. T. D. Cook.

Acute Cholecystitis as a Postoperative Complication to Incidental Surgery—Dr. W. Leon.

Hepatic Artery Ligation—Dr. I. W. Kaplan.

Effect of Antibacterial Agents on Strangulated Bowel—Dr. Isidore Cohn, Jr.

Hernioplasty in Infants—Dr. Harold Albert.

Anthrodesis for Flat Foot—Dr. Irving Cahen.

Case Presentations—Dr. J. D. Rives and Surgical Staff.

Cardiac Valvulotomy—Dr. W. J. Burdette.

Carcinoma of Esophagus—Dr. L. H. Strug.

Chronic Pancreatitis—Dr. C. Craighead.

Gynecologic Case Presentation—Dr. P. Graffagnino and Staff.

The presentations will be made between 9:30 a. m. and 12:00 noon, and between 2:00 p. m. and 5:00 p. m.

PHYSICIAN NEEDED

The community of Basile, Louisiana is in need of a physician since the recent death of Dr. O. L. Freeman who lived and practiced in the community for approximately thirty-three years. The population of Basile is 1,600 and there are many more citizens in the surrounding farm, cattle and oil country. There is no physician at this time within six miles of the town.

A registered nurse, with military and civilian experience has offered to work at a very nominal fee with any doctor who may come to this community to practice.

For further information contact Mr. Samuel J. Stagg, Stagg's Pharmacy, P. O. Box 473, Basile, Louisiana.

ADVANTAGE SEEN FOR DRUGGISTS BY STRESSING PROFESSIONAL STATUS

The pharmacist who emphasizes his professional as well as his merchandising skill in the operation of a drug store today is more likely to succeed than the druggist who stresses merchandising skill exclusively, Dr. J. Mark Hiebert, executive vice-president of Sterling Drug Inc., declared at the 25th commencement exercises of the New England College of Pharmacy.

"Druggists are the only retailers requiring a college degree in order to engage in retailing," Dr. Hiebert told the graduating class. "A pharmacist who throws away his professional education and training is forfeiting a most valuable competitive asset in this era of giant retailers and giant retailing."

SELF-EXAMINATION BY WOMEN BEST BREAST CANCER CONTROL

If breast cancer is to be detected at an early stage in its development, it is the women themselves who must do it, in the opinion of Dr. C. D. Haagensen, of the Institute of Cancer Research and the department of surgery, College of Physicians and Surgeons, Columbia University, New York.

"In order to be reasonably certain of detecting breast carcinoma at an early stage, the breasts must, in my opinion, be examined at least every two months," Dr. Haagensen wrote in the May 24 Journal of the American Medical Association.

"There are not enough physicians, enough time, or enough money to achieve this, even if women could be persuaded of the desirability of consulting physicians frequently for physical examination.

"I am today firmly convinced that teaching women to examine their own breasts is the best hope of improving our control of breast carcinoma."

In a series of cases where breast cancer was detected before it had spread to the under-arm glands, there was a five year clinical cure rate of approximately 90 per cent, Dr. Haagensen said. However, only 41.3 per cent of those patients in whom cancer had spread to the under-arm glands were found free of cancer for five years.

Women in their early 30's should be introduced to the subject of self-examination by their physicians, he said. This is the age at which breast cancer first begins to have a considerable frequency, a ndit is the earliest age at which women are willing to give thought and attention to such a serious subject as the detection of breast cancer, he added.

DEATHS FROM TUBERCULOSIS

Deaths from tuberculosis have been reduced to about one-tenth of what they were a century ago; but they still cost the U.S.A. 1,000,000 years of future working-life and $350,000,000 a year for medical care and related services. C.-E. A. Winslow, The Cost of Sickness and the Price of Health, WHO Monograph Series No. 7, 1951.

BOOK REVIEWS

A Translation of Galen's Hygiene: By Robert Montraville Green. 304 pages. Charles C. Thomas, Springfield, 1951. Price $5.75.

This is a delightful volume and Dr. Green is to be congratulated on having achieved such a readable and natural translation. As Dr. Sigerist points out in his introduction to the volume, "Galen has been greatly underestimated in recent years. This is partly due to his style, to the bulk of his work, to the lack of available editions and perhaps we unconsciously still resent the fact that he dominated medicine authoritatively in the East and in the West for centuries. "*De Sanitate Tuenda*" consists of 6 books: (1) The Art of Preserving Health; (2) Exercise and Massage; (3) Apotherapy, Bathing and Fatigue; (4) Forms and Treatment of Fatigue; (5) Diagnosis, Treatment and Prevention of Various Diseases and (6) Prophylaxis of Pathological Conditions.

Galen was a follower of Hippocrates and borrowed many concepts from him such as the concept of the four cardinal humors, blood, phlegm, yellow bile, and black bile, as well as the concept of elementary qualities, hot, cold, dry, moist. When the humors are in the right quantity and mixture, then the individual is in good health. The goal of the hygienist is to maintain the correct balance of humors and qualities by prescribing the correct kind and amount of food, drink, sleep, exercise, massage, etc. The physician in prescribing a hygienic mode of living must take into account the patient's constitution and age, as well as the climate and season. Thus he "must endeavor to correct the disorders of health, making moister those conditions which are too dry, and making drier those which are too moist; and similarly purging the excess of those which are too warm and restraining the excess of those which are too cool." The reader will find much of interest in Galen's suggestions. They concern a highly developed and sophisticated personal hygiene. The reader will also appreciate one of the concluding paragraphs "For, as I said, some men are greatly injured and some remain uninjured by the same thing until old age. These two classes are rare, however, those that are greatly injured and those that are never injured. But the intermediate range of more or less extends to the great majority of men. To the educated, therefore, for the rest will not read this, I recommend to observe by what things they are benefited and injured; for thus it will befall them to have little need of doctors, so long as they are well."

A brief but excellent account of the life of Galen by Dr. Sidney Licht is also invluded.

H. S. MAYERSON, PH.D.

From a Doctor's Heart: By Eugene F. Snyder, M. D., with a foreword by Paul D. White. New York, Philosophical Library, 1951. pp. 251. illus. Price $3.75.

The author of this book was born in Russia and after spending twenty-one years in Russia and Czechoslovakia he came to the United States just in time to escape the bloody revolutions in Europe. He found peace in the U. S., opened an office in Chicopee Falls, Massachusetts, and then narrowly escaped death from the No. 1 killer of the middle aged—coronary thrombosis. This book is the story of his experiences during and following his heart attack and is written from the heart, to the heart and about the heart. Dr. Snyder answers many questions pertaining to mental and physical health and points out the necessity of a search for all prophylactic measures and clues against the hazard of coronary heart disease. He also seeks to better human relationship throughout the world and touches on national, racial, and political problems of the day. In the book discussions between the author, his wife, who is also a physician and their teen-age son play a large part. This is an account of pain, despair, courage and hope well written from a personal standpoint.

RUTH E. HARLAMERT

PUBLICATIONS RECEIVED—

The C. V. Mosby Co., St. Louis: The Oculorotary Muscle, by Richard G. Scobee, B. A., M. D., F. A. C. S.; Studies in Visual Optics, by Joseph I. Pascal, B. S., M. A., O. D., M. D.; Synopsis of Genitourinary Diseases, by Austin I. Dodson, M. D., F. A. C. S.

W. B. Saunders Co., Phila.: Culdoscopy: A New Technic in Gynecologic and Obstetric Diagnosis, by Albert Decker, M. D., D. O. G., F. A. C. S.; The Treatment of Injuries to the Nervous System, by Donald Munro, M. D., F. A. C. S.

Charles C. Thomas, Publisher, Springfield, Ill.: Roentgenology in Obstetrics and Gynecology (2nd Edit.), by William Snow, M. D.; Rare Manifestations of Metabolic Bone Disease, by I. Snapper, M. D.; Battle Casualties, by Gilbert W. Beebe, Ph.D. and Michael E. De Bakey, M. D.